The Builder.

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Alterations, Itton Court, Mon.—Mr. E. Guy Dawber, Architect ..... *Double-Page Photo-Litho.*
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House and Studio, "Bournemead," Bushey.—Mr. J. M. Brydon, Architect ..... *Single-Page Photo-Litho.*
Village Hall, Forest Row.—Mr. J. M. Brydon, Architect ..... *Single-Page Photo-Litho.*

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French Art of the Year.

IT is curious to notice how completely the two French exhibitions, though larger in scale than ours, run on the same comparative lines. As with us the Royal Academy represents the more multifarious and popular exhibition, and the New Gallery that of a smaller and more select minority, so in Paris it is with the old Salon and the new. The former is an enormous collection of pictures representing no predominant aim, and appealing in a great measure to popular tastes; the latter a smaller collection representing a more definite theory of art, and appealing on the whole to the more cultivated and thoughtful section of the public. It seems therefore that there is in both countries some kind of public demand for these two types of exhibition, and that their parallel existence in the two capitals is the result of something more than a mere accident of circumstance. One very important distinction between the two exhibitions in Paris is, that while in the larger one the works of artists with almost all kinds of different aims are strung up pell-mell, with no attempt at grouping either in regard to artist or subject, or to any other consideration than the relative sizes of the pictures and their most convenient arrangement on the walls, in the new Salon the works of separate artists are all grouped together, so that one can study each painter's work collectively and form a distinct idea as to his method and object. In the old Salon, with its immense areas of wall space to be covered, any such grouping would be all but impossible; while this attention to grouping in the new Salon is the result of something more than a mere consideration of convenience or symmetry; it is the outward visible sign of the view which regards a painting as the expression of the mind and method of the artist rather than the mere illustration of a scene or an incident.

Architecture at the new Salon, which we are bound to notice first in order, is however a very unimportant section of the exhibition, and the formal announcement that architecture was to be represented this year at the Champ de Mars has resulted in nothing more than a small room-full of drawings containing nothing of the first order of interest. There are, however, one or two unusual and characteristic exhibits. Among these may be specially mentioned the collection of drawings, models, &c., of which M. Baudot, in collaboration with MM. Delaherche, Delon, and Guérard, has endeavoured to give a pretty complete illustration of the design and decorative treatment of a "Petite Habitation Parisienne," by means of drawings and photographs of the house, along with pieces of executed ornamental work belonging to it—a door with panels decorated in burnt charcoal on the plain surface of the wood; a stained glass window, a chimney-piece, pieces of exterior decoration in stoneware (rather too ponderous in detail), and interior decorative faïence. This is a new and praiseworthy innovation in the illustration of architecture in exhibitions, worth attention and imitation. M. Paul Gout also goes a little out of the customary path in showing not only detail drawings of fragments of his "Lycée Racine," but a model also of the iron construction supporting the façade of the gymnasium building above an open stage on the ground story. M. Benouville's "Maison de Campagne" shows a quieter taste and less of the "spiky picturesque" than is usual in this class of French designs. M. Cuvillier's "Château de Montmorency (Seine-et-Oise)" is we suppose a new mansion, as we know of no ancient château of that name, though the drawings look rather like an imitation of a French seventeenth-century château; this is a building of considerable importance and some merit. His design for a "façade en céramique," called a "Maison de Rapport," is a very clever and pleasing design for the treatment of a street façade in coloured tiles combined with brickwork. M. Guillemonat's various bits of too fanciful decorative design have a good deal of ability; that for the gate of the furniture department in a Musée des Arts Décoratifs, though sadly wanting in restraint, is really clever in the way in which it conveys at once the idea that it is an entry to a furniture gallery; at least, if we knew there was a furniture gallery in the supposed museum, we should certainly go that gate for it. His idea for a monument to Columbus, built out in the sea, is at any rate by no means commonplace. Then we have also some drawings by M. Boileau called "Études d'Architecture Nouvelle," which seems to represent a glorified greenhouse style, and of which the less said the better. Nothing in the room is more interesting than the illustrative drawings by M. Vincent of the Château de Dampierre-sur-Bouton, a delightful old building with a double loggia with thick and lumpy cylindrical piers, looking like a Gothic conception of the Classic column, with arch-mouldings growing out of them half way up, and circular stunted angle-towers with walls much battered, and high conical roofs which look like a huge extinguisher on a short remnant of candle; indeed, the first glance at these suggests the idea that the ground has been raised and that only half the turret remains above it, though the rest of the façade contradicts this idea. On the whole, though, as we have said, there is nothing of first-rate interest, the quality of the small collection of architectural exhibits stands in very fair relation to its quantity.

The class of "Objets d'Art," which was first introduced as a novelty in the Champ de Mars Salon—an intimation that there was something else in art besides pictures and statues, and which at first was a very small and feeble show, has developed a little more, and now includes a certain amount of good work, mostly arranged in the gallery round the staircase hall. Pewter work seems to be occupying a good deal of attention, and is treated not by any means as a base material for plain objects of a cottage style, but as the vehicle for very refined and graceful design and decoration, as witness the work of M. Charpentier, the vase with sirens by M.

Engrand, and the case of "Mes Étains" by M. Desbois. In one of these latter an effective and delicate ornamentation is produced by a merely indented (rather than incised) line; a method exactly in keeping with the nature of the material. The collection includes various statuettes, enamels, furniture, &c.; among the furniture a curious carved chair by M. Carabin, which rests on nude figures doubled up beneath and behind it, while the arms consist of carved cats, characteristically placed facing opposite ways, one to the back, one to the front. One of the most remarkable pieces of workmanship is the "Panneau d'Orfévrerie" by M. Vernier, belonging to the Department of Public Instruction, and symbolising "L'Orfévrerie Française," with a gilt figure in bas-relief in the centre and a number of emblems around the frame. A wrought iron knocker, by M. Dampt, in the Sculpture Court, is a vigorous bit of work, but not sufficiently like a knocker, a class of article in which many mistakes in design have been made. The striking portion of a knocker should always appear as if specially suited, in idea and construction, for knocking, which it often is not. The Sculpture Court contains little that is of much value, except a fine crouching figure of Eve by M. Injalbert, and two spirited bas-reliefs, "Suites des Poèmes Idyliques," by the same hand.

But the paintings contain much that is of high interest. It is a satisfaction to find Mr. Burne Jones represented, in a central position, by three of his best works, "Perseus and the Graiæ," a well-known portrait of a child, and "The Depths of the Sea," which latter work appears to excite much admiration. Mr. H. W. B. Davis too is well represented by four very good works, if not of his very best. His landscapes, in their delicate and finished workmanship, contrast curiously with the prevailing tone and manner of French landscape; on the other hand one cannot but recognise in some of the more broadly (might we say coarsely?) executed French landscapes, as in M. Courtens' "Soleil de Septembre" and Mr. Eliot's "Midi sur l'Eau," a reality and intensity of sunlight effect which rather kills the English painter's less bold workmanship.

The large decorative work by M. Puvis de Chavannes, which has always been a leading incident at the Champ de Mars Salon, is this year a painting representing "Hommage de Victor Hugo à la Ville de Paris." The picture, in the artist's usual flat style and faint key of colour, represents Paris as a draped figure seated under a canopy of classic architecture, and attended by three other female figures standing behind and holding a crown over her, while the poet, in ample and finely designed drapery, approaches her, supported in his turn by angels blowing trumpets in the air behind him. Some other figures behind the Paris group complete the composition, which is dignified and large in style, but not so attractive as some of the artist's other decorative compositions, into which the element of landscape enters more or less. It is not stated for what position the picture is intended. Among other of the larger works at the Champ de Mars we may recognise the prevalence of an effort to use the nude figure not as a merely realistic study, but as an element of poetic expression in compositions which are treated in a conventional tone and manner entirely removed from actual nature. A prominent example of this is M. Aublet's "Juillet," a scene in which woods and water and figures are treated in low and almost flat tints, and which might be called an idyllic vision, unfortunately marred by the commonplace head of the central seated figure. M. Boutet de Monvel in the same spirit treats "La Jeunesse de Diane," a side elevation (one might almost call it) of a youthful nude figure running across a background of conventionally coloured foliage; the pinkish tints of the flesh are conventional too, and the whole work suggests a cartoon for tapestry, in which medium it might be a fine and effective piece of decoration. Those who tire of these rather shadowy and dream-like nudes may find compensation in M. Courtois' "Inquietude Humaine," which does not exactly explain its title, but is a fine and monumental-looking group of a noble-looking man, standing and as if looking away to the distance, and a woman seated at his feet; a picture which in its fine and carefully-studied composition recalls the old "Classic divinity" type of French subject, but with a more refined conventionalism of execution, midway between the purely conventional and the realistic. M. Dagnan-Bouveret treats realistic types of modern figures with a painter's conventionalism in his group of peasants seated in a cleared space "Dans le Forêt," a picture in which the figures and costume are entirely realistic but are seen, as it were, through a veil which reduces the colouring to demi-tints, and renders the work an impression (in the best sense) rather than an actual scene: the expression and character of the heads is most carefully studied. M. Frappa's "Le Rhône et la Saône," in which figures of a peasant man and peasant woman disembark from their boats and meet on the last point of land dividing the two rivers, with a kind of "glad-we-have-met" manner, is a fair though rather amusing specimen of the style of semi-allegory so popular in France for public buildings decoration; it is intended for the new Préfecture du Rhône. M. Max Leenhardt's large painting for the Salle des Fêtes of the University of Montpellier, representing the celebration of the sixth centenary of the "Faculté de Médecine" of Montpellier in 1890, is a representation of a real scene treated decoratively, adequate to its purpose but not very interesting.

M. Carolus-Duran brings us to the very furthest extreme from decorative or ideal painting, and it is difficult to understand his place in the Champ de Mars Salon, with the general tendencies of which he seems completely out of sympathy. His portraits are hardly as impressive as usual this year, chiefly because he has not been very fortunate in his sitters (as a French catalogue never gives the name of the sitter, there is no personality in the remark). The costumes of "Mdme. C. B." and "Mdme. C. D., the latter a kind of claret-coloured dress not very grateful to the eye as a piece of colour, are treated with great effect; the most pleasing picture of the set is the seated portrait of "Mdme. la Comtesse de P." in a dark velvet dress with a grey-lined cloak. There is a portrait of M. Guillaume, the architect to the Louvre, rather hardly painted though a good likeness; but there is nothing this year to rival one or two of the painter's brilliant performances of previous years. Among other portrait painters there is M. Eugène Carrière, who paints portraits with the outlines fading off in a mist after the manner of M. Henner's figures; M. Blanche contributes a good set of portraits, including a charming half-length called "Ketty" (Kitty?); M. Courtois, whose principal work we have already referred to, sends a remarkably able portrait, "Mrs. Kreissmann," a lady with her back to a door and her small head full of character and expression. M. Baud-Bovy's "Le Jeune Homme" may perhaps be classed among portraits, but it is something more—a kind of type of thoughtful youth, meditating on life. M. Rixens and M. Gervex also contribute well to portraiture.

The Champ de Mars Salon has its eccentricities, though less of them than formerly; among them M. Frédéric's "Salutation Angélique" (a kind of modernised Botticelli) and his rather repulsive studies of ugly half-veiled nudes under romantic names; and Mr. Dannat's studies of Spanish heads and figures, clever but extravagant and ugly to a degree. Another French-American artist, Mr. Harrison, shows very well this year with some sea-side moonlight studies, and also three "études de nu," small figures in landscape, which are among the cleverest things of their kind in the exhibition. M. Kaemmerer's study of an ivy-cinctured Roman youth looks like an imitation of Mr. Tadema, and a very clever one. There are few landscapes which stand out as specially fine, beyond those we have mentioned; but among the best are to be recognised those of M. Barau, M. Damoye (small works in a broad free style), M. Firmin-Girard; M. Mesdag's "En Danger," a really fine sea piece; those of M. Menod; M. Muenier—his large picture of "Villefranche au Crépuscule" has been bought by the State, but is not a very remarkable work. A large interior of Notre Dame by M. Helleu may be noted as an architectural picture, but the architecture is not well treated.

Coming to the vast array of pictures in the old Salon at the Palais de l'Industrie, we can but attempt to give a few indications of the leading works and the general character of the exhibition. In M. Roybet's picture of "Charles le Téméraire à Nesles," in the vestibule, we are at once confronted with one radical distinction between the prevalent aims of the old and new Salons. For this is nothing more or less than a cabinet picture magnified to an enormous size; a *tour de force* of sheer realism of a very commonplace order, in spite of its glaring brilliancy of execution. M. Munkacsky's still larger canvas, "Arpad" receiving the homage of the Carpathian tribes (Salle 16),* is less flashy in execution than Roybet, but it shows little sense of decorative effect, and is but a piece of cleverly-painted commonplace on a gigantic scale. It is intended for the Hungarian Parliament House, and is in fact a kind of picture very well suited to please popular feeling as a national and patriotic painting. Of other works of the largest scale in the same room, is M. Schommer's picture in commemoration of the visit of the President to Boulogne; the official tours of M. Carnot furnishing a favourite subject to the painters who delight in stupendous canvases. This is a large flatly painted picture of the *plein-air* school, showing the reception of the President by the Municipal authorities, and from a pictorial point of view about as uninteresting as it well could be. A comparatively small *genre* picture by M. Vallet, in the same room, "Grande Marée," a little girl standing on a jetty overlooking a windy sea, is worth the whole of it. Among the large works, one with an idea in it is M. Danger's of Christ walking sadly among the corpses on a battlefield, with the quotation, "This is my commandment, that ye love one another" (30). Unfortunately a fine subject is here spoiled by cold colour and rather hard execution, but it is a picture to be noted. So is M. Chalon's "Hélène Dévastatrice" (30), a colossal painting of Helen of Troy walking amid the carnage and flames of the city which has been ruined for her sake; a picture which again is remarkable rather for a powerful idea than for artistic balance of treatment. In fact, this is one of the most marked distinctions between the old Salon and the new, as between the Royal Academy and the New Gallery—that in the former the subject seems the prominent interest, in the latter the artistic treatment. There are exceptions of course in each case; a brilliant one at the Palais de l'Industrie is M. Henri Martin's "Les Troubadours" (15), a scene in a forest, with two or three red-cloaked Mediæval-looking figures on the ground and certain angels hovering above them among the trees, whose figures seem actually to radiate a mild supernatural light. The object here is the effect of light, colour, and texture; the story or meaning is indeed very obscure, but the painter's method is extraordinarily interesting, and the patience with which this large canvas has been gone over, touch by touch, to obtain the desired effect, cannot be too highly appreciated.

M. Bouguereau's "Offrande de l'Amour" (20) charming in its way, looks like a picture of

* We give after each picture, in brackets, the number of the room in which it is hung, as this may be of use in enabling any of our readers who may visit the Salon to find the pictures referred to. The catalogue number of the picture, as every one knows, affords no clue as to where it may be found, the numbers following no order whatever.

Stothard's magnified to life-size, better drawn than Stothard could draw, and even more superficial in style and sentiment; the very type of academical finish and shallowness, executed to perfection in its own way. M. Du Mond makes an effective picture out of the subject of Columbus ridiculed by the Council of Salamanca when explaining his projects to them (38), remarkable for the able study of a number of heads expressing various phases of spite and foolishness; the picture is effectively grouped also. In painful contrast to this dignified historical subject is another large picture "Chez Marseille" (35), showing a number of what the French now call "the Highlife" seated as spectators of a boxing-match, a painting which has nothing whatever to recommend it except the vulgar realism which is one of the blots of a section of modern French painting. The State in its purchases seems rather to favour realistic subjects, but generally those with a moral, as in M. Geoffroy's "La Prière des Humbles" (31), a praiseworthy and serious painting, both in idea and execution. M. Gutherz has attempted the mystical, not without some effect, in his "Le Soir du Sixième Jour" (26), where Adam and Eve kneel in the foreground before a sky and earth crowded with rejoicing angels. M. Sinibaldi's "Aurore" (14) is a pretty ideal picture on a large scale, where a troup of idealised maidens in long draperies walk out in procession to greet the morning, which shines with a somewhat *clinquant* effect on the landscape. This is a monumental style of subject which will bear a pretty large canvas. In some other cases one is astonished at the scale on which realistic incidents are painted. M. Princeteau's "Préparatifs du Depart" (15) shows the interior of a cowhouse with two or three oxen standing harnessed, and one couchant in the foreground—painted life-size, and as if with a brush the size of a house-painter's brush; there is a great power about it, but what can be done with it, except as a decoration for an agricultural hall, it is difficult to say. Mr. Smith-Lewis, again (one of the French-Americans), paints "Les Bains de Dinard" (14), a sea-shore scene, with two young women in bathing costumes in the foreground, and an expanse of sea with other bathing groups in the shallow water; it is a really clever picture, full of the look of open air and bright daylight, but the foreground figures are life-size and the whole thing as big as the side of a room. We can fancy some English painter of seaside scenes making a pretty picture of this kind on a cabinet scale; but why paint such a thing as this on such a scale? It is too large for any private house; it is not monumental or decorative enough in subject for a public building, and it would be curious to know what is the feeling or ambition which drives clever French painters to paint pictures of this kind, absolutely devoid of incident or sentiment, on such an enormous scale. Is it the pure pleasure of "painting big?" No one surely can buy them: at least, we can imagine no possible destination for this one except perhaps the entrance hall of a large "établissement des Bains."

As usual, the Salon is pretty full of what Mr. Stevenson tells us (*vide* "The Wrecker") the French student calls "conscientious nudes," a good many of which hardly justify their existence either by great excellence of execution or by any poetry of conception, but are simply studies, more or less good, sometimes more or less bad, and at times suggesting a sense of the ridiculous in their absolute lack of any logical relation to their title. Who would expect to find "Dans les Dunes" (18) three modern ladies in amicable converse without their clothes? The painting, by M. Berthault, is a good one, if he could only have found a better *raison d'être* for it. M. Henner indeed is a painter of true poems in this class, though in his "Dormeuse" (23), he has exaggerated his trick of "losing the outline" until his figure almost suggests the idea of being in the process of being dissolved away by some acid. Two other pictures which fully justify themselves are the "Artemis" (12), of M. Wencker (a pupil of Gerôme), a figure in the woods, stooping to put on a sandal, and which is a splendid piece of painting and draughtsmanship; and, in a higher style, M. Leroy's "Une Jeune Fille" (25), a half-length seated and nearly turned away from the spectator, which both in execution and the indefinable sentiment which pervades it, is a real picture in the highest sense of the word, and one of the best things in the vast collection.

In portraiture the Salon can boast one of the grandest works of the year, M. Benjamin-Constant's superb portrait of Lord Dufferin (20), and very fine and interesting too is his other portrait of Lady Hélène Vincent (20), treated as a "panneau décoratif"; the lady is represented as a goddess seated on a throne with a gold shield forming a kind of nimbus behind her head; she faces the spectator, and the upright lines of the throne and the figure are contrasted by the folds of a mantle which is thrown over the throne in an oblique line behind the figure and droops down on one side. This is a new idea in the treatment of portraiture. Among other portraits which we may just name are M. Benner's "Mdme. Ch. B." (20), M. Bonnat's two portraits of ladies (20); M. Chartran's "Baron H. de B." (32); M. Clairin's "Mdme. Sarah Bernhardt" (36) in the part of Cleopatra; M. Comerre's portrait of a little girl in a long dress (36); M. Debat-Ponsan's "Portrait de Mdme. A. R."; and M. Desvallière's "Mdme. F. des P." (33), a portrait of unusually spirited treatment, if a little theatrical in action.

Landscape is never the strongest point of the Salon, and tends to run rather into conscientious topographical representation, or careful painting of scenes which have little beauty in themselves. M. Quignon's "Les Sainfoins," (9) for instance, is good work, but a very uninteresting picture. The State has purchased M. Kerdréoret's "Au Mouillage" (33), a quiet good little harbour scene, and M. Simonnet's "Ville d'Avray—Effêt de Neige" (12), a good painting, but rather of the topographical order, to which official taste seems to incline. It is difficult to select any from among the landscapes as of special value or beyond the general level, though it must be admitted that the best and truest landscape hardly gets fair play in this immense collection of pictures often of very startling and pronounced colour and subject, and some which produce little effect here might be regarded very differently if seen under less distracting conditions.

We may mention a few other works which should not be passed over: M. Cain's "Napoléon après l'Abdication" (36), which includes part of the Palace of Fontainebleau as an architectural background; M. Calbet's "La Musique" (30), a decorative panel; M. Debat-Ponsan's "Avril" (38), cattle and figures; M. Démarest's "Aux Péris en Mer" (36); M. Gueldry's "Une Distribution de Secours" (37); M. J. P. Lauren's "Saint Jean Chrysostom" (21) and "La Petite de Bouchamps" (23); M. Le Roux' "Sedilia" (25), a child in front of the stalls of a cathedral; M. Loir's "Avant l'Embarquement" (19), a good military picture; M. Monginot's "Au Chaud" (17), a remarkable still-life painting; M. Morot's "Rétraite de St. Jean d'Acre" (13); M. Sergent's "Kleber à l'Assaut de St. Jean d'Acre" (14), perhaps the best battle picture of the year; and M. Eugène Claude's "Chez ma Fruitière" (37), a splendid piece of still-life painting.

Of sculpture we can only say a word; the works are as numerous as usual, but, amid the usual high average of French sculpture, there are fewer works than usual which can be selected as of special excellence and interest, and on the whole the year is not one of the best in sculpture. M. Falguière's "Poésie Hêroïque" however, which faces the main entrance at the spot usually devoted to his principal work, is in his best way, and is remarkable not only for the beauty and spirit of the figure but for that air of intellectual distinction and character in the head, in which M. Falguière's ideal figures stand almost alone in modern sculpture. M. Godet's "La Fable et la Vérité," is, after this, one of the most striking and expressive works in the exhibition. There is plenty of fine modelling to be seen, and many works which have their special interest; but we do not find so much as on some former occasions of that intellectual thought embodied in sculpture which is rare enough indeed anywhere, but certainly in general less rare in French sculpture than in that of any other school or country at the present moment.

NOTES.

IT will be a great relief when the disastrous dispute at Hull is finally settled, although a certain feeling of uneasiness must prevail as to the future. This will be due partly to the distrust manifested by the combatants at different stages of the struggle as to the *bona fides* of their opponents; and also to the possibility, always present, of a suspicion that the spirit of the terms of settlement is being evaded should the relations of the disputants again become strained from any cause. Judging by past experience, it cannot be relied upon that an agreement like the following—the letter of which is perfectly explicit—will effectually prevent friction unless distrust is banished. The proposed basis of settlement provides that the British Labour Exchange in Hull be kept open, but that "neither registration at the Exchange, nor membership in any union, shall in itself carry with it either preference or prejudice in regard to employment. It is not for a moment suggested that either party would enter upon this agreement with any intention of evading it. The probability is that any future dispute will turn upon a preference or prejudice having no connexion whatever with membership in either of the rival combinations being alleged, nevertheless to constitute an infringement of the clause just quoted. Once such a position is taken up by either side and resisted by the other, war may be declared again, and for this reason it is most desirable that a properly qualified tribunal should be in existence to which such a dispute may be referred at the outset. Capable and earnest mediators have intervened during the present struggle, but disputants should not be left in uncertainty as to where they should look for impartial arbitration when they have found it impossible to come to terms.

IT appears that both our architectural societies, the Institute and the Association, are suffering from a diminishing attendance at their meetings. The attendance at the last meeting of the Institute was very poor, and it is not very creditable to the members of the Institute, or that proportion who profess to make a practice of attending the meetings, that so able a man as Professor Baldwin Brown should have been left to read a paper on so interesting a subject, the attempt to estimate the genuine value of Vitruvius to the modern architect, to a room with half the benches empty. At the Architectural Association the epidemic of non-attendance appears to have become so severe that special reference is made to it in a recent official circular, and suggestions are invited for remedying this state of affairs. We may suggest that, for one thing, the hour of meeting is an awkward one. The Association set out, if we remember right, with 6.30 as its time of assembling, which gradually shifted to 7 p.m., and now to 7.30 (not very punctually adhered to sometimes). Now 7.30 is neither one thing nor another. The old early hour was intended probably for the convenience of pupils and draughtsmen who came straight from their offices, when the Association was a

small affair only. But it is in a very different position now; it is a large and influential society, though a junior one, and will probably do well to accommodate itself to the usual hours of large societies meeting in London. 7.30 is an inconvenient hour; it is too late for those members who do not dine late, it is early for those—an increasing number probably—who habitually dine late. The confirmed late-diner can get to a meeting at 8 by anticipating his usual dinner-hour a little, but he cannot get to one at 7.30, and he does not want to upset all the usual arrangements of his household once a fortnight for the sake of the meeting. 8 p.m. is a normal hour for meetings, and the Association had better accept it.

THE International Art Exhibition which was opened at Berlin with much ceremony on Sunday last, is apparently exciting more interest in Germany than an exhibition of this kind has ever done before. The three great schools of painting of the German Empire are apparently competing for honours, and art critics are busy deciding as to the various merits of works by the members of the Prussian Royal Academy, those from the hands of the "progressive" Society of Berlin Artists and the radical "impressionist" section of the Munich painters. According to the *National Zeitung*, the official catalogue gives the titles of nearly 2,500 works, of which some 1,700 are oil paintings. Sculpture is said to be well represented, but architecture, according to this contemporary, is below the average. The hanging at the exhibition has apparently the approval of the local press, and an illustrated catalogue by Messrs. Schuster, showing some 200 of the exhibits, has been very well received. The Emperor went over the exhibition a few days previous to the opening ceremony.

IT is to be regretted that the Committee of the House of Lords before whom the Bill of the London County Council came last week has rejected that part of the measure which would have made the garden of Lincoln's Inn Fields a public space. We are certain that this is a mere retardation of a step which is certain to be taken in due course. There is, in our opinion, no justification for withholding this garden any longer from the general public. If it were in a square surrounded by residences instead of offices, the case would be quite different. As a matter of fact, what use is made of it is by persons who are charged a fee by the trustees. To withhold its use from the general public cannot be justified. As the Bill in question provided that compensation should be paid for any damage to any private right, there was no legal objection to the measure. We therefore hope that the County Council will bring forward the Bill again next Session, and that it will, after it has passed the House of Commons, be supported by petitions from all quarters.

IN a somewhat rambling but well-meant article in the current number of the *National Review*, under the head of "Amusements of the Poor," Lady Jeune makes a practical suggestion of some value. It is that the building known as Columbia Market should be used as a public recreation building in which concerts for the poor should be held, and in which the poor of the neighbourhood should be able to find harmless amusement. Such a building would be of great social value, and if a number of halls could be erected in different parts of London to be conducted on similar lines they would supply a want. If Columbia Market cannot be transformed into Columbia Hall we hope Lady Jeune will use her social and philanthropic energies to obtain a more modest but similar building in some spot where it is needed.

WE have before us Dr. R. Bruce Low's report to the Local Government Board on the general sanitary condition of the Hendon Rural Sanitary District, and on scarlatina and diphtheria therein. The following are some of the causes suggested in the report for the unsatisfactory sanitary state of the district:—

"Wooden cottages exist throughout the district, as, for instance, at Alperton, Elstree, and Kingsbury, some of which are damp and insufficiently ventilated, while others are dilapidated. Commonly they are also small in size and badly lighted. As a rule, these wooden cottages are old buildings, and their defects of construction are due to the mistakes of past generations. But defects of the above sort are not confined to wooden dwellings. Cottages built of brick are in various localitites found to be in bad repair. Some of them were found unsafe, as, for instance, those at Edgware recently closed by magistrate's order. And even comparatively new cottages are sometimes damp, through imperfection of the methods adopted for getting rid of the rain which falls upon their roofs. Some that I saw at Wealdstone, for instance, though their roofs were properly spouted, had their downfall pipes arranged to deliver directly on the surface of the ground beside the dwelling; so that the rain from their roofs was soaking into their foundations, and with the result that damp could be seen rising both outside and inside on their walls."

The question of water supply, as usual, comes in:—

"At Pinner, though the mains pass through the streets, several local wells are still in use. One such well I saw situated in a front garden; it is about 12 ft. deep, dry steined only, and insufficiently protected from surface washings. A 'clay-jointed' drain from a water-closet and slop-sink passed within 2 ft. of this well. The water of the well becomes at times discoloured and smells badly. Farther up the same street a well, 60 ft. deep, situated in a back-yard, is in use by several families. The top of this well is provided with a lid, level with the ground. The labour of winding up the bucket to obtain water from the well prevented, I was told, its free use."

Further on, we come on the old complaints as to want of attention to removal of refuse, which is always found in connexion with insanitary reports of rural districts:—

"A large number of dwellings have water-closets. In the cottage class of property these closets are usually situated out of doors; most of them are flushed only by hand, and many of them were in a dirty state at the time of my inspection. Some of the basins were coated with filth; some were completely choked up and unusable, and in other cases the basins were cracked or broken, At Wealdstone the closets are generally supplied each with a flushing-box; but it is of the kind known as a 'waste preventer,' and only flushes so long as the chain is pulled. Careless persons, or those in a hurry, do not drag on the chain long enough to flush the basin completely; consequently I found many such closets in a filthy state from want of sufficient flushing. . . With regard to *house-refuse* there are no arrangements for public scavenging. *Each occupier has to get rid of the refuse as best he may.* Where there are gardens and allotments, no particular difficulty is experienced in dealing with it; but where there are no back gardens or allotments, or where there is only a small backyard, the occupier is often at a loss what to do with his house-refuse. At Wealdstone, for example, I saw that in many cases it had been deposited upon unoccupied building land, notwithstanding a notice posted there, threatening offenders with penalty for so doing. In some cases house-refuse had been surreptitiously deposited on the roadside. Some persons were found bedding their backyards with ashes and house-refuse, and other people were using their ashes for making paths. Ash-bins are hardly ever to be seen in connexion with cottage property in the district."

COMBERMERE Abbey Estate, on the southern confines of Cheshire, will be offered for sale in July next. The property is named from the Comber Mere, close to which the mansion stands. The latter represents a religious house founded there for Cistercians in 1133 by Hugh Malbanc, Lord of Nantwich. Valued in the "Monasticon" at 27*l.* yearly, it was granted by Henry VIII. to Sir George Cotton, his esquire of the body, and Mary his wife. It has since continued in that family, which gave many renowned officers to our militant forces, including the late Field-Marshal, Lord Combermere, ennobled for his services in the Peninsula. Mrs. Thrale (Piozzi) was a daughter of Hester, second daughter of Sir Thomas Cotton, Bart., by her marriage with Mr. John Salusbury, of Bachecraig. William III. stayed one night at Combermere when on his way to encounter King James II.'s army in Ireland. Some materials of the monastery were used in building the present house. Of the interior of the library, a fine apartment, and supposed to have been made of the refectory, there is a view, together with two others of the house and grounds, after Augustus Butler, in vol. V. of Twycross's "Mansions of England and Wales," 1847-50; the carvings comprise a set of shields bearing the arms of the Salusburys and Cottons from the time of King John, which are considered to be unique after their kind. Two other views, one after P. de Wint, will be found in Dr. George Ormerod's "Cheshire," 1819.

THE small joint exhibition of works by Mr. Cotman and Mr. Macquoid, at the Society of Fine Arts Gallery, does not explain itself, as there is no sort of relation between the work of the two exhibitors. Mr. Cotman's small landscapes form the chief value of the collection; at least they are more interesting than Mr. Macquoid's paintings of animals and costumes, though some of these are brilliant in their way.

THE exhibition of the Society of Portrait Painters at the Grafton Gallery looks so well on the first entry that one comes to the conclusion that it must be one of the great attractions of the season. Several of the best contributions, however, have been hung together in the Octagon gallery, and a penetration into the further rooms shows that quality of the whole exhibition is not quite borne out by the promise of the first room. There are a sufficient number of really fine portraits to render the collection well worth a visit, and some of them are not less welcome for being old acquaintances. Among them are two very fine specimens of French portrait painting, by M. Jules Lefebvre and M. Carolus-Duran; a fine painting of Miss Mabel Lewis by Mr. John Collier; a portrait of a girl by Mr. Lavery; Mr. Roll's curious and half comic portrait of "Coquelin Cadet"; Mr. Whistler's of Signor Sarasate, &c. Mr. Blake Wirgman and Mr. Percy Bigland take a very good place in the exhibition, their portraits showing dignity of style as well as careful execution.

ARCHITECTURE AT THE ROYAL ACADEMY.—III.

1,506: "Design for East Window, St. Margaret's Church, Lowestoft," Messrs. Heaton, Butler, & Bayne. This is hung rather too high to be well seen; but it appears to be a good window design of the normal type, of which the general colour effect is satisfactory.

1,507: "Banacle Edge, Witley, Surrey," Mr. Basil Champneys. A pleasant, picturesque, small country house, with a good deal of character about it. A long roof with the ridge parallel with the front of the house is broken by three gables rising out of the roof and filled with plaster scroll decoration; small bay-windows are corbelled out under the wide eaves, an octagon bay projects in the centre on the ground story, with a balcony railing over. The whole is a picturesque country nest. By the same architect is:—

1,509: "Swan-buildings, E.C." A very good example of the architectural treatment of a business front in a quiet and unostentatious manner. It is a high narrow front chiefly of brick, with a ground floor shop window and a little bas-relief of a swan on the side pier; higher up the date on a panel is made into an ornamental adjunct. There is little other ornament, but the elevation is notable for the care and refinement with which all the small details and mouldings are treated; the design looks very simple and unpretending but it is full of good little points which give it a quiet originality and character, and is in its way, one of the most meritorious exhibits in the room.

1,508, 1,510, interior and exterior of "St. Peter's Church, Bushey Heath," by Mr. James Neale, have both been illustrated in our pages; they are solidly executed pen drawings showing a chancel in Gothic style with a roof ceiled in cants and a traceried window at east end.

1,512: "Municipal Technical School, Manchester"; Messrs. Spalding & Cross. No plan is given, though a plan in a building of this kind is of great importance; the drawing is a large and careful pen line perspective in a rather mechanical architectural draughtsman's style. The general design is suitable enough to a building of that class; the material may be guessed to be terra-cotta facing, from the indications of detail; the windows are arranged in vertical groups in the manner (derived originally from French château architecture) which is so much the fashion at present; the centre is projected and raised, and emphasised by round turrets at the angles, between which is a deeply recessed doorway. There is nothing original in the architectural treatment, but it is suited to the class of building for which it is intended.

1,514: "Design for Frieze"; Mr. Arthur Gwatkin. This may be taken along with Nos. 1,521 and 1,538 by the same hand. 1,521 is the large drawing which hangs centrally on the walls, and is a piece of rich and effective foliage design, in which large scrolls of acanthus, kept rather dark in colour, are relieved by a play of coloured flowers over them; the whole being kept quite formal and conventional. 1,538 is a smaller design of somewhat similar type, and very good in colour: 1,514 is a floral design somewhat more realistic, and not so satisfactory as design, though the colour is agreeable.

1,517: "St. Olave's Grammar Schools, Southwark"; Mr. E. W. Mountford. This is a quiet and suitable treatment of school architecture, though the want of a plan renders it impossible to trace out the meaning of the architectural treatment. The grouping of the three tiers of windows in the wings is well managed, and adds dignity to this part of the exterior; the wings are connected by a lower centre decorated with engaged columns. We may observe that the quadrant porch in the re-entering angle on the left, a good feature in itself, is out of drawing.

1,518: "Battersea Town Hall," by the same architect, is a view of the back portion of the building, showing an example of the use of Gothic buttresses with an aisle wall closing them in, applied in a style which is not Gothic.

1,519: "A Small Country House, Yorkshire"; Mr. G. Kenyon. Rather a melancholy looking little house—this may be the effect of the drawing; it is noticeable as one of the few cases in which complete plans have been added, as of equal importance with the perspective view. As a compact country-house plan this has merits, in regard to the arrangement of the principal rooms, but it is a defect to leave the small lobby, on which the sitting-room doors concentrate, of so very irregular a plan; this might have been avoided; a lobby should not appear a space left by accident, as this does.

1,520: "Design for a Frieze;" Mr. Paton Wilson. A monochrome drawing of a frieze formed of seaweed forms and fish, cleverly designed and with a good decorative effect.

1,532: "Design for a Cardroom Window;" Mr. F. G. Collinson. A Renaissance alcove painted on the centre of a square-paned window, with a card king in the niche; below is a cartouche with some emblem on it, supported by two cupids. The whole looks a little too fragmentary, but it is a new idea.

1,534: "St. Joseph's Church, West Hartlepool"; Messrs. Dunn, Hansom, & Dunn. This is a solid-looking church, apparently brick, but we fear the tower cannot be regarded as satisfactory; it is too much as if divided into two equal halves, and wants definite balance and proportion; one does not know whether to regard it as a square tower with an octagon lantern, or an octagon tower with a square lower story; one or other form should dominate.

1,535: "Leeds School of Medicine, Mount Pleasant"; W. H. Thorp. No plan, without which one cannot tell the meaning of the exterior features, or why there are large windows in one place and small in another. The general design has an agreeable aspect of what may be called collegiate Gothic, with a short battlemented tower of distinctly collegiate type over the entrance. The octagon lantern on this tower falls into the opposite error from that of Messrs. Dunn & Hansom's church, in being too small for its tower, and seeming lost on the top of it, the angle buttresses not even availing to connect it with the angles of the tower.

1,536: "View of Goddington, Chelsfield, Kent"; Mr. W. H. Neve. An example of a half-timbered house aiming decidedly at the picturesque, but treated symmetrically in its main arrangement of masses. There is a little too much of the timber-yard about it, and the higher portions seem to want, architecturally, a little more solid support.

1,540: "The Tower and Ante-Chapel, St. John's College, Hurstpierpoint"; Messrs. Carpenter and Ingelow. An elevation showing a solid stone tower with a staircase turret at one angle, and a gable in grey flint abutting against the lower portion of it. The rest of the building, so far as shown, is in grey flint (apparently) with light-coloured stone dressing. It is a satisfactory and solid bit of modern Gothic building, with no pretension to anything exceptional in treatment.

1,541: "Design for a Book Cover;" Mr. Rowland G. Jones. Designs for book-covers are not as often seen here as one might expect, for it is a class of work quite allied to architectural design. This is a design in white on black, except a grey border-line, for Spenser's "Shepherd's Calendar"; the upper portion showing a harp form with a circular wreath of symmetrical foliage appearing as if hung on it; but the whole is kept very conventional, and is rather a suggestion than a representation. We do not gather whether the design is meant really to be in white and black, or whether this is only intended to represent gilding. It is a good design either way.

1,542: "Church of St. Columba, Wanstead Slip: interior"; Mr. E. P. Warren. A very plain interior with a brick arcade without mouldings, apparently plastered in the spandrels, which are left white. The tie-beams are effectively treated in a simple manner, and the whole is a very good bit of interior architecture for a church where, as we conclude, simplicity and economy were desired.

1,543 to 1,545 are works by Messrs. Ernest George and Peto. The first, "Motcombe," shows the plan of a large house in two blocks, the offices block surrounding a courtyard with something like an approach to a cloister (judging from the plan). The house has a large forecourt on the entrance side; the garden front, which is shown in the view, is very plainly treated, with mullioned windows, with corbels which occasionally diversify themselves by rising in the middle into a little triangular-shaped pediment, for no particular reason. The doorway alone is decorated with some simple architectural features. The general effect is eminently home-like, though of a home of another day. The plan is a good one, and shows a fine suite of rooms on the ground floor, well secluded and cut off from the offices; the space to the left of the dining-room end seems rather wasted. No. 1,544: "7, Delahay-street, Westminster," is a very good plain treatment of street architecture with round-headed windows which nevertheless are far more Gothic than classic in effect; as there is no plan we do not see the reason, though there should be one, for the abnormal height and narrowness of one group of windows on the right. Nor do we understand the meaning of the number of iron tie-beads visible on the walls. Are these old walls pulled about and cut into? If so, of course the ties are comprehensible. If the whole is new building (and there is nothing to indicate the contrary), why is it that Messrs. George and Peto, or their builders, cannot build brick walls safely without iron bandages, seeing that other people can do so? No. 1,545: "West Dean, Chichester," is an interior of a hall, with a large projecting stone chimney-breast going right up to the ceiling, treated with columns below the mantelpiece, and decorated above with plaster, and a cornice surmounted by a broken pediment and angle pyramids shown in bas-relief at the corners. This desire to get in the orthodox pyramid or nine-pin termination of Jacobean architecture, even in a bas-relief representation, is touching; but this is a picturesque hall nevertheless, with its plain solid wainscot on the lower portion of the wall, and open timber gallery or loggia at the end. A view of the staircase is subjoined on the same sheet.

Various important drawings which are passed over in their proper order of numbering in the preceding remarks, were already referred to in the first article on the Architecture at the Royal Academy.

A.A. STUDENTS' SMOKING CONCERT.—Once a year it is the custom of the A.A. students to arrange a smoking concert and to invite the General Committee and Instructors as guests. A large number of members mustered on Monday evening last under the chairmanship of the President, Mr. H. O. Cresswell, and a very pleasant evening was spent at the "Mona Hotel," Covent Garden. The chairman was supported by Messrs. Goldsmith Farrow, Baggallay, Earle, Elsey Smith, Lewis, Max Clarke, and Cole Adams. Messrs. E. Graham Simpson, S. B. Lee, and E. O. Cummins performed the necessary secretarial duties.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS:

HOW TO USE VITRUVIUS.

THE fourteenth ordinary general meeting of this Institute for the present session was held on Monday evening last at Conduit-street, the President, Mr. J. Macvicar Anderson, in the chair.

The Secretary announced the death of Mr. George Pownall, Fellow.

The names of several gentlemen recommended for election as Fellows and Associates were read, and it was also announced that M. Eugène Müntz, of Paris, was recommended for election as an Honorary and Corresponding Member.

The Dictionary of Architecture.

The President said that before calling on the lecturer for the evening, he wished to interpolate a few words. In the rooms of the Institute during the past week a meeting was held and presided over by their old friend Professor T. Hayter Lewis. The meeting was convened for the purpose of winding-up a work of great magnitude and importance—the "Dictionary of Architecture." He thought it would not be seemly if the completion of that great work were allowed to pass without the Institute recording its acknowledgments to those gentlemen who had, by their energy and indefatigable labours, brought about the completion of the "Dictionary." It would be difficult to say when the work was inaugurated. Only those who could lay claim to be the oldest members of the Institute could have any recollection of the period. It was satisfactory to know, however, that long as the work had been in hand, it had been brought to a successful conclusion. There were one or two gentlemen whose names had been intimately associated with the work. Foremost amongst them stood the name of Mr. Wyatt Papworth, and indefatigable as his labours had been, they had been ably seconded by the gentleman who had acted as secretary to the Architectural Publication Society for a great number of years, viz., Mr. Arthur Cates. He (the President) begged to move a most cordial and hearty vote of thanks to those gentlemen for their labours, which had now brought about the completion of a great work. In such a matter as that he felt that the Institute was speaking the feelings of the whole of the profession.

The motion was carried by acclamation.

Vitruvius.

The President said he had much pleasure in calling upon Professor Baldwin Brown, Honorary Associate of the Institute, and Professor of Fine Arts in the University of Edinburgh, to read a paper on "How to Use Vitruvius."

Professor Baldwin Brown, in commencing his paper, said it was part of the educational policy of the Institute to encourage the historical study of architecture amongst the younger members of the profession. The scheme of Progressive Examinations laid down by the Institute required that the aspirant should become as well acquainted with the normal forms of the art in the past as with its modern practice. He was taught to value tradition while being prepared to adapt his art to the actual conditions of the present, and was encouraged to view in a catholic spirit, as part of one great unity, the manifold phases through which architecture had passed in ancient, mediæval, and modern times. That being so, it was not necessary to apologise for the introduction of a theme which had no claim to that actuality which some might deem obligatory in a paper addressed to a professional audience. The subject had no immediate relation to any of the pressing problems of the hour. The most perfect acquaintance with Vitruvius's book would not enable an architect to design an ideal modern cathedral, for instance. The study of Vitruvius belonged avowedly to the literary rather than to the practical side of architecture; but it was not on that account a subject unsuitable for the attention of the Institute. Any one who looked through the *Transactions* of the Institute could not fail to be struck with the amount of archæological treasure enshrined in those volumes. All the most distinguished writers and explorers in regard to architecture had proceeded out of the ranks of practising architects, and were the supply of such to fail the whole tone of the profession would suffer. The layman who entered into that field must do so under disadvantages. The lecturer concluded his preliminary remarks by observing that he should make no pretence to deal with obscure technical problems; his paper was merely meant to serve as a

guide to those who might not be far advanced in Vitruvian studies. Vitruvius Pollius (for the *prenomen* Marcus rested on no ancient authority) was an architect and military engineer of the time of Augustus Cæsar. He wrote a work in ten books, entitled "*De Architecturâ*." Those books treated of architecture, engineering, and military works, but also incidentally gave us certain details about himself and his professional career, and about the sources from which he derived the matter for his book. The importance of the treatise to modern students appeared at once from the fact that Vitruvius was the only ancient architect whose utterances on matters concerning his own art and profession had come down to us. But Vitruvius's book had not only survived: it had enjoyed quite an extraordinary reputation, and that in ancient and mediæval as well as in modern times. An acute scholar of the early part of the present century, Councillor Schultz, gave it as his opinion that the "*De Architecturâ*" was a figment of the tenth century; but that view, which was never seriously supported, was certainly disposed of by the number and antiquity of the manuscripts of Vitruvius, an account of which was laid before the Institute in 1836 by the late Professor Donaldson. The estimation in which the Romans held the treatise was shown by the fact that the elder Pliny paid Vitruvius the compliment of quoting (without acknowledgment) whole paragraphs from it. Frontinus, in his remarks upon Roman aqueducts, spoke of "Vitruvius the architect." There was other evidence as to the genuineness of the antiquity of the faith in Vitruvius as an architect. In the fifth century, Sidonius Apollinaris, Bishop of Clermont, enumerating in rhetorical strain the names of men of old famed in various spheres, made mention of the plumb-line of Vitruvius. Whatever was the exact date at which Vitruvius wrote, it must be remembered that he lived at the very beginning of the great Imperial period of Roman architecture, and and had either not had the opportunity of seeing, or did not think it necessary to mention, the characteristic Imperial structures which were beginning to be built in his lifetime. Vitruvius's work was in all probability preserved to posterity through the interest taken in the remains of antique culture at the Court of Charles the Great. The oldest MS. of the work which had survived was that in the Harleian collection in the British Museum; that MS. dated from the ninth century, and belonged formerly to the abbot of the monastery at Hildesheim. Valentinus Rose considered that there was evidence of the existence of a manuscript of the "*De Architecturâ*" written in Anglo-Saxon characters of about the eighth century, and that point (which was to be explained by the intercourse between Charles and his ministers and some of our Saxon kings) might be worth the attention of those who were interested in our pre-Norman stone architecture. Preserved and studied under monastic conditions during the middle ages, the MSS. of Vitruvius were sought out and studied with avidity by the scholars of the Early Italian Renaissance, and for their benefit, Sulpitius, the first editor of a printed Vitruvius, edited the *editio princeps* of the "*De Architecturâ*" at Rome about 1486. That edition was soon followed by others, the most notable of which were those edited by Fra Giocondo. The lecturer said it was not his purpose to review the successive printed editions of Vitruvius, of which a grand collection was to be found in the Library of the Institute; nor was that needful, as communications on the subject by Professor Aitchison and Mr. Paul Waterhouse appeared in the *Journal* of the Institute in 1890. Nor was it necessary to repeat the oft-told story of the extraordinary influence exercised by Vitruvius's book over the men of the late Renaissance and of the seventeenth and eighteenth centuries. In many quarters Vitruvius was looked upon with the same kind of reverence with which Protestant Churchmen of the same period regarded the Bible. Writers who criticised his style or his statements still (like Leon Battista Alberti) relied on him to form the groundwork of their own disquisitions, and his influence was traceable through all the Italian architectural writings of the Later Renaissance; was potent in the France of Louis XIV., when Perrault published his great French edition; and appeared on almost every page of such English works as Sir William Chambers' "Civil Architecture." Even as recently as 1836, Marini, the editor of the most sumptuous edition of Vitruvius that had ever appeared, spoke of the "*De Architecturâ*" as a "noble work pored over in constant perusal by so many distinguished architects." But although Vitruvius came down to us from antiquity with considerable claims to our respect, the species of reverence with which he had been regarded was now a thing of the past. Now there was danger of going to extremes on the other side, and it was unfortunate that the modern critical era, though it had done so much, had not yet produced a full and satisfactory edition of Vitruvius. The student of Vitruvius who approached that author from the historical and artistic standpoints soon found himself, for practical purposes, breaking up the treatise into certain main divisions, the respective contents of which were greatly unequal in value. Most of the last three books, relating to hydraulics, dials, water-clocks, and military engines, might be put on one side, and from the other books various incidental discussions, such as those on the winds and Greek harmonics, might be eliminated. The bulk of the treatise would then be found to consist of matter of archæological and literary interest, roughly divisible under four heads, viz., 1, personal references and reflections; 2, technical discussions as to the nature and use of various materials employed in construction and decoration; 3, dissertations on the laying out of cities and the planning and arrangement of public and private edifices; and lastly, there were detailed directions, with measurements, for the setting-out of the "orders" and the planning and construction of the more important buildings. That portion which had been the object of the most attention and reverence was the last, and that was just the part which must be received by modern students with the greatest caution and reserve. The general descriptions were, on the whole, more trustworthy; while the technical discussions, especially in the section on decoration, possessed an actuality which was absent in other parts of the book, and were often of the highest interest and value. For the interpretation of all the matter of the treatise the personal references scattered up and down it should be taken into account. The lecturer quoted some of these, showing that Vitruvius spoke bitterly of "the emptiness of busy practitioners" who had "elbowed him out of the course," who "bought their way with money," and "made interest through their friends," having "a winning way" with them, and being "smooth of tongue." He said he was of modest means, but he scorned "to use the arts of those who went about to canvass for clients." Some of his contemporary practitioners of the latter type were, he says, "not only ignorant of architectural science, but of the simplest building processes; yet they went boldly raiding in their ignorance, tempting their clients with small estimates, and then sending them in a ruinous bill." There was also, he said, "the heaven-born artist architect, who learnt his business by the light of nature." "No wonder," he exclaimed, "that the long-suffering paterfamilias became in desperation his own architect, preferring to waste his money at his own sweet will rather than at another's." Disappointed as Vitruvius seemed to have been in most of his aspirations, one of his desires had been amply fulfilled — the desire, namely, that his fame should rest on his book. Having discussed some of the points suggested by Vitruvius's silence as to the works of the Augustan age, in their bearing as to the date at which portions of the "*De Architecturâ*" were written, the lecturer went on to say that the technical passages in the work were written in simpler language and in a more flowing style than the more ambitious parts of the treatise, but there was no need to enlarge upon them, as the recent work of Professor Middleton on "Ancient Rome" contained in its earlier chapters a very complete commentary on that part of the "*De Architecturâ*." Vitruvius had a far higher ideal in plaster work than the Florentines of the Renaissance, and he strongly criticised the then new fashion in decoration, consisting of painting feigned architectural members upon the walls, and the imitation of subjects of various kinds from nature. His attack on new fashions in wall decoration was substantially the only notice taken by Vitruvius of the changes in taste and practice which were going on in his time. There was much that could be made use of by the student in the account given by Vitruvius, at the opening of Book V., of the Forum and public buildings adjacent to it. In all Western cities the market-place was the centre of urban life, just as the city gate was in the East, and Vitruvius began his account of secular architecture with the Forum. Passing from the readable descriptions given by Vitruvius of these buildings, the lecturer spoke of those sections of the treatise which dealt with the proportions of sacred edifices and with the details of the so-called orders. That was the portion of the "*De Architecturâ*" to which the greatest importance had generally been attached; it was the part, for example, selected for translation and annotation by Wilkins. and it was quoted on almost every page of all the older books on classical architecture. It was, however, the part which the new Vitruvian criticism was inclined to pass over as unworthy of serious attention, and in dealing with it in the present day one had to adopt an almost apologetic attitude. Having cited a number of passages in support of this view, and expressed the opinion that Vitruvius had never been in Greece, although he wrote of Athenian buildings as if he had seen them, the lecturer, in his concluding remarks, showed that Vitruvius had promulgated a somewhat narrow view of Grecian architecture by giving the impression that it was more formal and rigid than was actually the case. What made that architecture so perennially instructive to the student was the exhibition, side by side, of the most simple, even bald, severity of form, with the most delicate and almost imperceptible varieties and refinements in detail. As long as architecture was recognised as an art based essentially on composition in mass and line, so long would the Greeks, the greatest masters of form the world had ever seen, continue to be the preceptors of successive generations of constructive artists. No one who came to close quarters with the work of the Greeks could avoid an encounter with Vitruvius, and if the intercourse that resulted was to be of real value, the author must be neither exalted nor despised, but only understood.

The President, in inviting discussion, said he had followed with very keen interest the able treatise which Professor Baldwin Brown had just read to them. Nor could it be otherwise, for apart from the interest of the more technical part of the treatise, it could not fail to interest them to learn how those problems which they spent their lives in trying to solve were treated by men who lived nearly two thousand years ago. It was also interesting to learn from Vitruvius's personal experience that even in those days a man of solid parts, of erudition, and ability, had yet to repine that such qualities were to a great extent unrecognised by an inappreciative public; while, on the other hand, men not possessed of those solid qualifications managed to push themselves into positions for which they were not qualified. He feared, from circumstances which occasionally came under his own observation, that such experiences were not confined to the age of Augustus. Even in those days, it would seem that there were men who assumed to themselves, while they denied it to others, the title of heaven-born artist architect. He called upon Professor Kerr to open the discussion.

Professor Kerr said he had very great pleasure in moving a vote of thanks to Professor Baldwin Brown for his interesting paper—a disquisition so eloquent, and so full of information, as to remind him of old times in that room. Vitruvius not only held a unique position as a writer on architecture, but he happened to live at a time which was of peculiar interest to us, viz., at the commencement of the Christian era. Of course, as had been said, the Emperor Augustus, like all the Romans, employed Greek artists, and in his opinion some of the works which the Greeks erected for the Romans were improvements upon some that they erected upon Hellenic ground. At all events, Greek architecture in its Roman phase had culminated before the time of Augustus, and was commencing that course of decadence which led to that typical style best manifested in the Colosseum. In fact, the Romans laid down their style at the Colosseum, and the Italians, thirteen hundred years after, took it up at the same point. Vitruvius seemed to have been somewhat of a purist in theory, and to have desired to revert to the classical Greek. He (the speaker) could not exactly see his way to believe that Alberti derived his knowledge from Vitruvius. He rather thought that he derived it from the ancient monuments themselves. Indeed, he believed that Vitruvius's book was first published in 1486, and Alberti's in 1485. He did not think that Vitruvius's writings had much influence in the sixteenth century. As he said, he thought that the Italian architects took up Italian architecture at the Colosseum, where it was left by the Romans.

Professor Aitchison, A.R.A., said he had much pleasure in seconding the vote of thanks to Professor Brown for his fascinating as well as philosophical account of the works of Vitruvius. With regard to the question of style, of course when architects were very numerous and there was a question

of livelihood in the choice of one of two styles, it was to be expected that there would be a good deal of vigour shown by the relative adherents of the two styles. Architects in the present day were undergoing a new system of instruction almost as great and as important as that undergone by the Barbarians who overran the Roman Empire, but in a different way. After the long blank which followed, there were a century or two left entirely unbridged. They could not expect the older men in the profession to spend very much time on the problem of bridging over this gap, but the younger men, the students, were seeking to bridge over it. He hoped that by constant assiduity and industry in study we, as a courageous, wise, and virtuous people, should have geniuses arise amongst us who would achieve things in architecture in the future as to which the things done in the past by us would be as nothing. He quite agreed that Vitruvius was a most fascinating author, but it was nevertheless difficult to understand why he had been so popular. There must have been some inherent merit in his work to carry it down to us, for not only architects but literary men attached much importance to it. The great point of the work of Vitruvius, as it appeared to him (the speaker) was that he had taught us the importance of taking a module for the arrangement of the proportion of buildings. In ancient architecture everything was arranged in accordance with some given module of proportion. Vitruvius had thrown much light upon that subject, and he had given a great many valuable practical hints as to matters of construction; but he lived in what might be called the raw brick period of Roman architecture, or, at least, if he lived beyond that period, he took no note or gave us no account of the transition which took place from brick to marble under Augustus, and did not describe the most striking features of the Roman architecture of the time. His remarks on plastering, &c., were of course extremely interesting, and his writings as a whole were invaluable to the archæologist, although, of course, as far as architects were concerned, archæology *per se* was merely an interesting amusement which had nothing whatever to do with architecture. Nevertheless, young architects who wanted to do great things must study the great things which had been done in the past, but the lessons which were to be learnt from the great works of the past must be gained from study of the buildings themselves. He was glad that Professor Brown had paid a well-merited tribute to Wilkins. With regard to the question of optical corrections in Greek architecture, he (the speaker) would point out that Plato frequently referred to the devices by which optical illusions were rectified.

Mr. H. H. Statham said he should like to say a few words in support of the vote of thanks to Professor Baldwin Brown for his exceedingly logical and interesting paper. He (the speaker) would suggest whether there was not one reason, which had been a little passed over, why Vitruvius had always been held in honour, and should be held in honour now; Professor Brown just approached it, but passed away from it again, viz., that Vitruvius was an architect who took a remarkably comprehensive and all-round view of his art. He was a man who, although his opinions about the artistic side of his art seemed to us somewhat pedantic, nevertheless regarded architecture as a great art, and gave the greatest possible attention, from his point of view, to all branches of technical instruction, so that his treatise formed a kind of *résumé* of all that the architect of his day had to think of. He thought that was one reason why Vitruvius had been thought so much of, and it was certainly one reason why the Institute should hold him in honour, for he was the first upholder in literature of the view of architecture which the Institute had been endeavouring to uphold, against considerable recent opposition. That was why he had hoped that there would have been a larger meeting than he saw before him to pay honour, not only to Professor Brown, but to the memory of Vitruvius. With regard to the remarks made by Vitruvius as to Greek buildings, he (the speaker) had always thought that Vitruvius had not seen the buildings themselves, and that seemed to be the view of Professor Brown. At the same time we had to remember that it was Vitruvius who put us on the track of the optical refinements and was right about some of them; he was a valuable suggester in that respect, at all events. He should like to point out one curious discrepancy between his theory as to the Parthenon and the actual facts of the building. He said that all the entablature should set rather forward, otherwise it would appear to be foreshortened to the eye, and the intended proportion would be spoiled. That was perfectly logical and reasonable, and yet the fact was that the whole entablature of the Parthenon, which was the most refined in design of any Greek building, was all set backwards, except only the corona, which was very slightly forward. He had always been impressed with that striking contrast between the words of Vitruvius and the actual facts; yet he thought that his theory was very possibly right in regard to the general practice of the Greeks. He should like to think, also, that Vitruvius was right as to his knowledge of other points of Greek architecture, because he thought his view of the Greek stage with a raised platform for the principal performers, and the orchestra down below, was absolutely in accordance with the spirit of the construction of the Greek drama; and he thought that if their learned contemporary in Germany, Dr. Dörpfeld, succeeded in proving that there was no raised stage, and that the principal performers were mixed with the chorus, so much the worse for the Greeks. He thought that all who had seen the Greek drama revived, as at Bradfield College last year, must come to the conclusion that there was a raised platform for the principal performers. It was very curious to note Vitruvius's criticism of the fashionable ornament of his day: he criticised freely what were afterwards to become the very worst features of Renaissance ornament. It seemed to show that the Roman example was stronger than Vitruvius's criticism. Professor Brown made some remarks about Vitruvius being up to date. He (the speaker) was turning over his Vitruvius in anticipation of the paper, and could not help being struck by some of the directions given by him for the arrangement of temples and other buildings; the directions were only modern life put in another way. The temples of Bacchus, he said, should always be put near the theatres. If one walked down the Strand one would see a modern application of that.

Mr. John Slater said he had great pleasure in supporting the motion. One of the things that had struck him as most interesting in reading Vitruvius was the description of the plaster-work of the ancients, which enabled us to understand, to some extent at least, the charm of the colour decorations of the buildings he referred to. He had just had an opportunity of seeing the coloured decorations in some of the restored churches at Hildesheim, which, viewed in the light thrown upon such matters by Vitruvius, were horrible to contemplate. He cordially welcomed Professor Baldwin Brown's paper, for he (the speaker) had always urged students to study Vitruvius, whose writings showed clearly that the architect must be a many-sided man. He (the speaker) had always thought that it was a mistake for any architect to limit himself to one style. The architect who did so would only find himself in a Procrustean bed.

Mr. William White, F.S.A., said it seemed to him that Mr. Statham's remarks were perfectly true and just, but he thought they ought to go back, like Vitruvius, to some agreement of principles of construction and proportion, which had been very little considered as matters of geometrical principle. He thought that the geometrical principle of proportion was so essential to true harmony and elegance in architecture that whatever style might be adopted, there ought to be some systematic mode, some agreement—some conventional agreement—for carrying it into practice. As for the popularity of Vitruvius, he thought that there was just that one simple account to be given of it, which was knowledge.

The President, in putting the motion, said they had all listened with pleasure to what had been truly described as a fascinating and philosophical lecture.

The motion having been carried by acclamation

Professor Baldwin Brown, in reply, said he thanked the meeting very warmly for the kind attention which they had bestowed upon his long paper. At that period he would not venture to detain them by any lengthened remarks on all the points raised in the course of the discussion, but he should like to make one or two observations with regard to Professor Aitchison's remarks as to the use of archæology. As a matter of fact there was a right way and a wrong way of using archæological knowledge. He thought that a knowledge of archæology in certain departments would be of great advantage to every architect. He would especially instance the archæology of *technique*, a knowledge of which, in regard to such matters as plaster work, for example, would be of great value to the modern architect. Professor Aitchison had referred to Wilkins and his ingenious explanation of the *scamilli impares*, but Wilkins and Vitruvius were not in accord. One explanation was that the optical curvatures in Greek architecture were made to counteract an apparent tendency to hollows in straight lines; another explanation was that the curvatures were meant to be seen as curvatures. For his (the lecturer's) own part, he could not see the need of any optical corrections of straight lines. To his eye, there were no hollows. With regard to the Greek stage, he thoroughly agreed with what Mr. Statham had said. For artistic effect the *pulpitum*, the elevated stage, was wanted. Professor Curtius, of Berlin, had recently expressed his opinion that there was originally a stage, probably of wood, but he did not believe Dr. Dörpfeld's theory that the actors walked about on stilts amongst the chorus.

The meeting then terminated with the announcement by the President that the next meeting would be held on the 5th proximo.

THE STONE BUILDINGS OF THE COTSWOLDS.*

THE particular portion of the Cotswold Hills to which I wish to draw your attention this evening is the small area bounded by Cheltenham and Winchcombe on the west, by Chipping Norton and Moreton-in-Marsh on the east, by Broadway and Campden on the north, and Northleach and Cirencester on the south. In appearance these Wolds have a gentle down-like aspect falling at intervals into valleys, the sides of the hills abounding with springs. Villages, farms, and manor houses are plentiful, and the country is well timbered, beach and elm growing specially well.

In these short notes I will not attempt to tell you of the history of these hills—how rich they are in Roman remains. There are everywhere traces of Roman occupation. The Fosse way—one of the most perfect of Roman roads—enters Gloucestershire near Moreton-in-Marsh, and runs in a direct line over hill and dale, through Stow-on-the-Wold, Northleach, and out at Cirencester—once a great Roman station. The beautiful remains of the villa, and Roman baths at Chedworth, some few miles from Northleach, are well known. A great portion of these remains are in a perfect state of preservation.

Under the Heptarchy, this country formed the western part of the extensive kingdom of Mercia. Winchcombe and Kingstanley were residences of its kings. This country is also interesting from its close connexion with the Parliamentary wars, many of the villages and houses having legends and tales concerning them. At Donnington, a little hamlet lying near Stow-on-the-Wold, the king's forces, under Lord Aston, were so completely defeated by Colonel Morgan in March, 1645, that all hope of maintaining the garrison at Oxford was abandoned. At Bourton-on-the-Hill was born Sir Thomas Overbury, whose death by poison is recorded in the Parish register in 1613. Amongst other interesting entries it is also recorded that on October 10, 1666, the parishioners collected a fund of six shillings and eightpence "towards the late fire at London."

At Compton some four miles from Moreton-in-Marsh, are the remains of Archbishop Juxon's Manor house, erected in the early part of the seventeenth century.

Chastleton Hall—not exactly on the Cotswolds—is a very fine house with a courtyard. It is full of most interesting work and detail, having excellent door and window fittings and panellings. The long gallery is a charming room with a barrelled plaster ceiling, panelled in oak up to the springing line. This oak was partly painted and gilt, as is the case at Haddon Hall and other places.

Geologically the Cotswold Hills form a portion of the great belt of limestones which extend across England from the Dorsetshire coast to a point between Filey and Scarborough. They form an elevated table land or plateau some 800 to 1,200 ft. above sea-level, presenting a steep escarpment facing west to the valley of the Severn.

This escarpment was perhaps a cliff range overhanging an arm of the sea, and the table land behind has since been cut into valleys by frost, rain, and brooks, and swept completely bare of the gravels which lie so thick in the valleys beneath. The strata dip slightly to the S.E. and E., and comprise the whole of the Oolitic series, a vast mass of more or less continuous beds of limestone, separated by partings of clay, all of

* A Paper by Mr. E. Guy Dawber, A.R.I.B.A. Read before the Architectural Association on the 12th inst., as elsewhere mentioned.

marine origin, and enclosing in places vast amounts of shelly matter, such as beds of oysters or reefs of coral.

To architects the whole formation is of unusual interest, as within its limits are found almost all the building limestones used in England. The series commences with the inferior oolitic limestones, which stretch from Bridport northward to Bearminster and Sherborne, and broadens out on the flat-topped Cotswolds east of Cheltenham. It is succeeded by a band of the clayey substance, "Fullers' Earth." This forms a water-bearing zone amongst the hills, which would otherwise present many arid and barren tracts. The Great or Bath oolite has at its base the well-known Stonesfield slate, which splits into coarse fissile slabs, used for roofing purposes.

The main body of the Great oolite caps the hills round Bath and ranges over the Cotswolds, where it is very largely quarried. The middle and lower beds are the best stones for building purposes, soft when first quarried, but possessing the well-known property of hardening under exposure.

The stone in the immediate district I am speaking of is quarried from about April to October, after which the quarries are closed for the winter months. It is generally obtained by clearing away the upper layers of inferior stone and earth, and is not mined for, as most of the Bath stones. When fresh quarried it is of a pale lemon colour, which bleaches by exposure, and after a time turns to all manner of rich colours, and quickly becomes covered with lichens. It is an excellent weather stone, as the work in the district testifies. Nearly every village has its local quarry, but the best stones are Bourton Hill, Westington, Windrush, &c., in the immediate district of which I speak.

Owing to the nature of the formation of these hills, and stone being practically the only material usable, we cannot but admire the ingenious way in which the builders used it in almost all their work. The country roads are metalled with it, and bad roads they are as a rule, unless mixed with a harder stone. The fields are divided by stone walls, mostly laid dry, with small stones, most ingeniously fitted together—in fact, in a wall properly built it is almost impossible to pull out a stone. The cattle troughs, gate posts—in fact, everything for which stone can be adopted, are made of this material.

The houses generally are simple in plan and not badly arranged, and in the larger houses, those occupied by the yeomen or farmers, the plan is generally elongated, with a large central hall or reception room, a kitchen on one side, and dairy, &c., beyond, and a general living-room on the other. The stairs lead out of the hall or a passage behind the hall to the bedrooms, nowadays changed to rooms opening off a passage, but formerly opening one out of the other. At this period it was thought injurious to sleep in rooms facing the sun, so most of the original rooms face the north and east.

Mr. Baring-Gould says, in his "Old Country Life":—

> "At the head of the stairs slept the squire and his wife, and all the rooms tenanted by the rest of the household were accessible only through that. The females, daughters of the house and maid-servants, lay in rooms on one side, say the right, the maids in those most distant, reached through the apartments of the young ladies; those of the men lay on the left, the sons of the house nearest the chamber of the squire, and the serving-men furthest off."

As a rule the houses—the cottages and manor houses, and, indeed, all the larger ones—were built during the seventeenth century or early part of the eighteenth. It is rare to find them much earlier than the last years of the sixteenth century, and this is probably owing to the fact that during the seventeenth century there were more resident gentry in the country than at any other period, and that they mostly lived on the produce of the land, and were not, as a class, at all wealthy.

Naturally these people would encourage building, and, no doubt, their example helped to form the taste of the people and inhabitants of their estates. Hence the uniformity of feeling in the work of this period.

When in the reign of Queen Anne the trade of the country developed, and great fortunes were rapidly made in commerce, many of the landed gentry who had become impoverished, first by the civil wars, and then by the extravagance of the Restoration period, sold their estates and went to live in the country, towns, and cities. The wealthy business class, who occupied some of these old houses, not being indigenous to the soil, did not take so much interest in the village folk and community at large, and chiefly expended money on their own houses, not having direct ancestral interest in the villages, and so to a certain extent neglected them.

Even in later times, when the labouring classes became very poor, it was no uncommon occurrence for them to be turned out of their villages and their cottages pulled down so that they should not become a burden on the parish and the landowners. You will note that nearly all these stone buildings are of the seventeenth century, and in this district you will often find entire villages built during this period with hardly a house of later date, except perhaps one or two erected within the last fifty years. They are nearly always built of rubble stone walling, sometimes coursed, but more generally not, and have dressed angles and stone mullioned windows, etc. The stone laminates freely, and hence there was no difficulty in obtaining walling stone. The walls are thick—2 ft. and more in many instances—and delightful window seats and nooks are obtained in this way, as the mullioned windows being on the outer face of the wall, the whole depth was given to the room. In some situations these thick walls hold the wet and damp to a very great extent. As a rule, however, they are absolutely dry. Horizontal damp courses were unknown when these houses were built, and the floors were generally of stone laid direct on the earth, unless there were cellars underneath. The upper floors were generally of thick joists pugged solid between with lime and chopped straw (see litho. illustration, fig. 5).

In Campden—a most unique country village—are some excellent specimens of this period from parts of the court-house, built in the fourteenth century to houses of the latter end of the last. The old market-house in the centre of the main street was built in 1624, by Sir Baptist Hicks, a former Mayor of London, and a great benefactor of the town. One house of the fifteenth century, with a beautiful bay window, carried up two stories, was the residence of the Grevilles, who were wealthy wool merchants in the fourteenth and fifteenth centuries, and whose memorial brasses are in the church. This now decayed town was full of life and activity, and had a very large wool trade with Flanders—the sheep being raised on the Cotswolds surrounding, and the wool being sent abroad.

I know of no more interesting country town in all England than this, or a more picturesque sight than the main street, with its small islands of buildings, as it were, dotted about, breaking the continuity of the street, and giving a charming variety to the perspective. Adjoining the church, on a raised terrace overlooking undulating fields and hills, are the remains of a house once inhabited by Baptist Hicks, which was burned down during the Parliamentary wars. At either end of this raised terrace are pavilions. There is a great similarity between the mouldings of these terrace pavilions and those of the Kite's Nest, a manor house near Broadway, some seven miles off—a house that contains amongst other interesting details a truly magnificent oak staircase, with massive turned balusters and solid newels. These houses were evidently built by the same hands and carried out at the same time, as they are rather later in character than the usual work.

The roofs of all these houses are treated in a similar manner, high pitched at about an angle of 55 deg., nearly all covered with the small stone slates of the district, or else thatched, but this is probably a substitution for the slates in later times. It is rare in this part of Gloucestershire to find the large, thick Forest of Dean slates, and to my mind the small ones are infinitely superior both in appearance and suitability. They are graduated in size and thickness from the eaves to the ridge, where the thinnest are placed.

They are covered always, in the old work, by a stone cresting, generally of plain section, and are hung with oak or deal pins over laths.

Owing, presumably, to the difficulty of procuring lead, the builders of these houses turned their attention to methods of doing without it, and so we find the houses generally so planned that they can be roofed in a single span. Hips are extremely rare. There are always gables with the coping projecting well over behind, the slates tucked close under and pointed flush. The chimneys, too, have a projecting weathering at the bottoms, following the rake of the roofs, and are nearly always arranged centrally over the ridge. The valleys where one would naturally expect to see lead, are formed of slates, in a wide sweep, laid on the curve just as the other portions. The eaves in most of the work project well out on a moulded or splayed stone course, and have no eaves gutters—a bad plan, as the water soaks into the foundations and makes them damp.

The method of procuring these slates is worth noting. In October a piece of ground at the quarry is measured off, and the top, 8 ft. or 10 ft. of loose stuff, is cleared away. This process is called "ridding." The stone for the slates is then uncovered, and is called "pendal." It is dug out and wheeled to the top of the ground, laid down flat, and roughly fitted one piece into the other as well as it will allow. It lies then all through the winter exposed to the frost in thicknesses of from 2 in. to 12 in., or 14 in. Owing to the beds of natural moisture in the "pendal," the frost swells these, and, in a thaw, a few blows of a hammer separates the layers. When this splitting is done they are squared and cut into sizes and are ready for use, but should there be no frost there are no slates and the stone must wait for the following winter.

For stone houses there is no more beautiful or suitable material than these stone slates. Even when brand-new, they are beautiful in colour, being of all shades of greys, yellows, and blues. To see the old houses, with roofs covered with lichens, and the richest colours conceivable, all harmoniously blended, is charming. If properly seasoned at first they will stand for centuries, and no frost or wet will touch them afterwards.

It seems difficult to understand, with such material in this district, that blue slates, and even galvanized iron—materials wholly out of harmony with the buildings—should be employed. Yet so it is—the excuse being that the stone slates are more trouble to hang and want occasional repairing, in spite of the fact that before one's very eyes are old houses and barns two hundred and more years old still covered with the original roofs. It seems unreasonable to go miles afield to obtain an inferior material, when a better one lies—literally—at one's feet.

Another matter I should like to draw your attention to is the variety of the stone gable terminations and finials. These latter are especially worthy of note. In no district in England is such a wonderful variety of detail and form to be found.

In Chastleton Hall are many good examples, and in Broadway and Campden and Moreton-in-Marsh they are especially interesting, being pierced and cut in a really marvellous manner. These finials are generally placed on the apex of the gables, but many are also on the springers and knee-stones. As an instance of the way tradition lingers in country places, even in these prosaic days, you may note corn-stacks thatched, with the apexes carried up, and open work finials in twisted and woven straw of infinite variety, showing the influence of the stone treatment in this district.

The windows are nearly always treated in the same way, with stone mullions, and narrow lights, about 18 in. from centre to centre, with stone chamfered ovolo moulded mullions, and with labels over the heads, or else a moulded string. Except in the larger houses, transomes and upper lights are uncommon.

The doorways vary. They have either the four-centred arch, such as you will notice on the photograph of Campden Almshouses (see fig. 6), or else a square head, with very deep lintel and moulded jambs.

In Broadway (see fig. 4), is a peculiar instance of the transition from the Tudor to the Jacobean style. The outline of the doorway is distinctly Gothic, having a four-centred head and leaves in the spandrels, but the detail is Classical, with dentils worked all round it and down the label moulding.

The roofs are frequently broken up with dormers, and these are treated in various ways, as you will see in the photographs exhibited.

The chimney-stacks are invariably carried up solid until the roof is well cleared, when the flues (see figs. 2, 4, and 6), are treated separately, either square or diagonal on plan, and the cap ties them together at the top. This, however, was the general method of treatment throughout England at this period.

In connexion with the windows I must speak of their fittings and their delicate and refined iron work. Many beautiful examples of these I show you to-night, both in the actual metal and in drawings. Great time and care were spent in the seventeenth century on the furniture of the doors and windows, and some of the iron casement fastenings in these Cotswold villages and houses are beautiful examples of the smith's work. When one considers that these houses were occupied and built for the yeomen and ordinary workers of the land, and that in the humblest cottages fastenings as delicate as the examples I exhibit are found, it grieves one to think that such work in such situations is unheard of in modern buildings. All of these fittings were made by the local smiths in the villages where these houses were built, and from

their frequency and variety in this part of England is evidence of a great power of design. In a window in the Kite's Nest—a farm-house near Broadway—you will notice the ingenious way in which the one handle works the top and bottom catches, and how cleverly the initial S is worked in and dominates the entire design. Can we not fancy the pride and pleasure of the smith in making such a charming piece of work? The door furniture, hinges, and lock plates show very great variety, and are evidences of a refinement of thought and feeling quite unknown amongst the rural population of the present day.

Plaster used in a constructional sense is uncommon, though there are a few instances in which the old "Wattle and Dab" treatment still remains. This is a rough framework of timber, covered with closely-woven and interlaced wicker-work, plastered on the outside face, the whole generally raised some four or five feet from the ground on a stone base. Only barns and farm buildings are treated in this way, and not the houses. In some instances, the stone buildings have been stuccoed, probably about the latter end of last century, in a rather original way, leaving the mullioned windows and dressed stone-work exposed, and the flat wall spaces treated with stamped designs and decorations. Good examples are to be found in Stow-on-the-Wold and Burford, and other places.

The real timber and plaster-house is never seen on the Cotswold proper; but it is interesting to notice that directly one gets into the Worcestershire and Warwickshire vale, where oak and chestnut abound, the timber treatment commences. At Broadway are some examples, though only fragmentary (see figs. 7 and 8), and then used in connexion with stone buildings, and not as a separate structure.

At Todenham, some three or four miles from the Cotswolds, in the Warwickshire vale, is a very fine half-timbered house, &c.

What is the one great lesson to be derived from the study of this old work of the Cotswold district? It may be summed up in two words, "Simplicity" and "Restraint." The more you analyse and look into these old buildings the more you will discover that all their charm depends on the honest, simple, and unaffected way in which they are treated.

If you take any of these houses and begin with the plan, you will notice how plain and direct is its purpose, and how suited to the lives and habits of the people who then occupied these houses. The rooms squarely treated, the windows and doors well placed, the fireplaces in the positions where most heat is obtainable (and yet where most effect is gained), all teach us a lesson, that in our daily work we should do well to follow. The exterior, with its broad quiet wall surfaces and simple roof, with gables at either end of the building, or with one gable standing out to mark the entrance all tell of a breadth of treatment and grasp of composition almost unknown to-day.

It must not be imagined that the great charm of these buildings is referable only to the softening and mellowing hand of time. Quiet grouping and dignified proportioning are great factors in their beauty of effect. Each building tells its own purpose at a glance; there is no mistaking the cottage for the manor house, though one may contain as delicate and refined handiwork as the other. All are treated with a consummate skill and power that show a wonderful appreciation of the beautiful at this period.

I would urge you, in your studies of old buildings, to strive to analyse their composition. Do not merely sketch the quaint bits of striking detail, but try to discover for yourselves what it is that produces the effect you see before you. If you are studying the Cotswold buildings you must assuredly come to the conclusion that everything depends on their quiet, refined, and simple treatment. Try, I repeat, and find out for yourselves how such effects are produced, and study those effects and principles, even more than mere detail. The noblest buildings in all ages depend mainly on their proportions and treatment of surfaces, and I think you will agree that the nobler and simpler the proportions, and the broader and quieter the surface, the grander in all respects the building.

Concentrate your grouping so as to give emphasis and point to parts of your design. Let some portions stand out distinctly, yet in harmony with the rest—your doorway, for instance, your dormers, roof, or chimneys. Above all, let the enrichment and ornament be so placed that it has meaning and purpose.

Poor sculpture—in this instance I mean carved enrichment and so-called "ornament"—is the bane and curse of much modern work. How many buildings are absolutely ruined and their effect spoilt, by being covered with bad carving laid on witnout object or purpose, in any position where there is wall space? We see many buildings that in themselves are good in their lines and grouping, yet with their proportions marred, their wall surface frittered away, by meaningless, commonplace carving. In the houses, of all kinds, in the Cotswold district, carving is almost entirely absent, but when it is used in the building, it tells its purpose and has point and meaning and justifies its own presence. In one group of buildings, the Almshouses of Campden (see fig. 6)—a long line of quiet frontage, with a projecting gabled wing at either end raised on a terrace overlooking the road, there is but a single central panel—the arms of the founder surrounded by mantling and crest; and one instinctively turns to that simple carved stone with a feeling of admiration for the artist who designed these buildings, and the restraint he has exhibited in his work.

If you must have carving, exercise your judgment, and only place it in positions where it will emphasise and help your design; do not put bands of carving round your chimneys or under your plinths, as we often see, and do not carve all your cornices and ornament.

There is one great feature about the work of these Cotswold builders—the certain way in which they obtained effect in their buildings. An enriched panel, a carved sundial, a coat of arms, or band of ornament, are far more telling when rightly placed than a wealth of meaningless detail. Words, fitly chosen, we are told, "are like apples of gold in a basket of silver." May we not say almost as much of wisely-chosen architectural details?

As a general rule, I have always thought that if you design good mouldings with careful regard to their positions, and omit entirely all sculpture and carving, you will have a better building, and one that will live better in years to come, than if you had depended on carving for effect.

Perhaps I go to an extreme, but to me bad carving is terrible. It is always an eyesore and an irritant. It is generally coarse and always vulgar—at the best dull and insipid; but so many buildings are nowadays covered with this meaningless style of work,—bodyless griffins swallowing their tails, or corpulent cupids with wreaths of flowers—all true "fish out of water," having no regard or relation to the building and forming no part of its composition.

Aim at breadth and boldness in your designs, and cut out all the meaningless detail, and detail that has no purpose to fulfil. Group your buildings so that all is harmonious, and look well to the principle of domination and subordination.

You may say that all this applies more to large buildings than to small every-day work; but there is as much design needed and breadth of treatment wanted for the cottage and small house as for the mansion. A speaker at a former meeting of the Association once said that he thought it a blessing that we had clients who put limitations to our work—and I think it a very true remark. If we had no difficulties to overcome, no conditions to fulfil, and no limit to our expenditure, we should soon be lost in a sea of architectural trouble.

It is the having strict conditions to adhere to, and a limit of cost to keep within, that not only gives zest to our work, but also restrains one's too exuberant fancies, and compels us to make the utmost of awkward sites and indifferent materials—though as a rule the more awkward the site, the pleasure is obtainable in overcoming its difficulties.

Now let me say a few words about glass. Use all the clear white glass you possibly can, and if you must have any painted or stained windows, try and get the very best obtainable, both in colour and design, and worthy of the position it has to occupy. A simple shield and coat of arms, a single head or motto even on a riband, well painted and executed, attracts the eye at once. Standing out against the sky like a gleaming jewel it is worth far more than many windows, filled with interesting patterns of indifferent workmanship and material. In the country it is so far more interesting to see nature's handiwork than man's, that one does not care to be shut in by coloured glass, when the sky and birds and flowers are to be seen. I know that opinions differ greatly as to large or small squares of glass, but for my part I would, wherever possible, break up the surface of windows into small panes, either with lead or wooden bars, so as to give scale and proportion to the building, and so avoid the bald empty look of large sheets of plate-glass. Sometimes when these latter are used the rooms are often cold, and there seems to be a draught from the windows. The origin is in the room itself, and is created by the fire. The heated atmosphere of the room is lowered in temperature by impact against the large cold surface of the glass, and returns in the direction of the fire as a chilly draught. This will often account for rooms in which plate glass has been substituted for the old lead lights being found so cold and draughty. Where the panes are small and the surface broken up, any tendency to this kind of draughtiness is not so noticeable. Of course in some positions plate glass must be used. For example, where large and extensive views are wanted, and the small panes would destroy the prospects afforded. Still, as a general rule, a window treated as I suggest will be found best for both internal and external effect.

In towns and cities the use of coloured glass is allowable; here unsightly objects have often to be shut out, but in the country you cannot have too much clear glass. A great charm is added to a window by lead glazing in quiet patterns—not too intricate, so as to be fussy or irritating to the eye—but some of the varieties and simple contrasts obtainable by the use of squares and circles are always pleasing.

There are many villages and houses in the Cotswolds where the old glass remains intact, notably in Broadway and Campden, and the villages adjoining. This is generally tinted, from a pale amber tone to almost bottle green. It mostly was cast this colour, but a good deal is referable to age and exposure to the elements. In many of the houses—for the most part on the windows of the staircases—there are devices, crests, or initials painted in some few panes. In a charming early sixteenth century house at Temple Guiting the glass in many of the lights has a bishop's mitre, or crozier, or other symbol; but most of this has been taken away, or broken up, and the house stripped of its panellings and furniture. It now, I believe, forms the residence of a ploughman. This fine old house was at one time the summer residence of the Bishops of Oxford, and belongs now to Christ Church College.

Endeavour to make your windows long and low, so as to get all the light you can into your rooms—a long mullioned window of some six or eight lights is far pleasanter to sit by than a high window reaching nearly from floor to ceiling. At times a high sill, with a wide window-seat, is a charming feature in any room. And speaking of windows, I do not myself at all object, as so many do, to sash windows. These, in some instances, can be used with almost better effect than casements, and, if properly treated, always look well.

In country houses it is well to give great consideration to the plan, and your rooms should be well placed, with a view to convenience inside, and also appearance outside. Remember that in the country, a drawing-room is used nearly all day long, and should have a southern aspect, so as to get all the sun obtainable. It should command the garden, or part of it, and be sheltered from the approach to the house. Your hall should have a fireplace, and should be, in a measure, treated as a sitting-room, with the stairs close to and yet not opening directly out of it. It should be a bright, cheerful apartment, but with a greater air of dignity than the other rooms. The dining-room in a country house of any pretension should be ample in size—there is no greater mistake than to make a small dining-room in a country house—and the windows, in my opinion, should be placed rather high up above the ground, as this is more especially a room for meals, and will not be used much at other times, though in smaller houses where the dining-room is generally the living-room, it is more cheerful to keep the sill low. There should be a serving door opening into a servery or lobby, and not another room. A door is better than a hatch, which is useless without servants to work together, one on either side of it. At the best it forcibly recalls the City restaurant. The lavatories, &c., should be conveniently placed, but yet quite apart, not on any account opening directly out of the hall, but out of a corridor leading to the billiard-room or the garden. It is most essential to provide a good lavatory on the ground-floor for the use of the male members of the family.

Fireplaces and chimneys will take all your time and ingenuity in country buildings, especially, as is so often the case, your house is surrounded and overtopped by high trees. Without the very greatest care, you will find some of them smoke, and all your labours will be thrown away, and all your best endeavours nullified. Clients are

obdurate where smoky chimneys are concerned, and the most beautiful chimney-piece, the most delightful ingle, is quite lost on them, and naturally too, if they cannot get near them for smoke. One of the best arrangements is to build the flues with flat ledges, to take the down draught and prevent the wind beating right down on the fire; cowls and pots are useless in many cases of smoky chimneys.

In conclusion, I would urge all the younger members of our profession to try and spend as much time on the works and in the workshops as possible. It is only there that we can see how our work develops and note opportunities for improving our work. You will find, that your happiest hours are spent on your buildings, watching them grow from foundation to finish, and you will regret you cannot be there more.

Nothing is too small or beneath your notice if you would produce a successful building. Try all you can to do your duty, and though oftentimes you will find the work on which you have spent most time and thought passes unnoticed, you have the inner consciousness that it is done well, and that is its own true reward.

I would urge all students to try and get on some building from commencement to completion, either under some clerk of works, or as one, and to learn thoroughly all the practical part of the profession. No amount of designing and drawing, however excellent, will make up for errors in construction and a want of practical knowledge.

Something has been said lately for and against a country practice. Having been articled in the country, and seeing nothing but country work and ways all that time, I also can sing the praises of a country practice. You will doubtless all agree that we London architects know quite as much of the way our work goes on as if we lived in the midst of it. In these days, when our work is so scattered, hundreds of miles apart, London, in my opinion, is the best centre for an architect, and I quite think we London architects are often as well acquainted with the country as those who live in it, and, if anything, more appreciative of the charming villages and beautiful rural scenes than those who live amongst them.

It must pain us all to see in so many villages the old-fashioned cottages and houses being swept away, and, in their place, hideous houses—rows in exact imitation one of another—vulgar and pretentious, bringing the artificiality of the town into the country. We hear so much nowadays of the country awakening to a great love of art, of the people appreciating architecture, and wishing for a higher ideal in life and work and its surroundings, and yet year after year sees the rapid effacement of such villages as I have described to-night, not only in this particular district, but all over England. Everywhere there is a transformation to the commonplace and sordid, and the old houses and buildings are pulled down or so altered as to be unrecognisable.

There is an old proverb that bids us "take care of the pence and the pounds will take care of themselves." In respect to our old architecture we seem to go on an inverse principle.

We take care of the "pounds"—our great national buildings, our cathedrals, our churches, and so on—and yet the poor little "pence," the cottages and small country houses, that, in my opinion, are quite as characteristic, and as essentially marking an epoch in English architecture—we neglect altogether, and are losing rapidly. Fortunately the Architectural Association does much to uphold the traditions of Old English domestic architecture. Its teaching all along has been directed to the cultivation of a love of that simple, homely style of building that finds its most perfect expression in our old country houses and villages, such as those I have spoken of to-night.

[Some notes of the discussion which followed will be found on another page.]

Illustrations.

INGLE-NOOK IN A BILLIARD-ROOM.

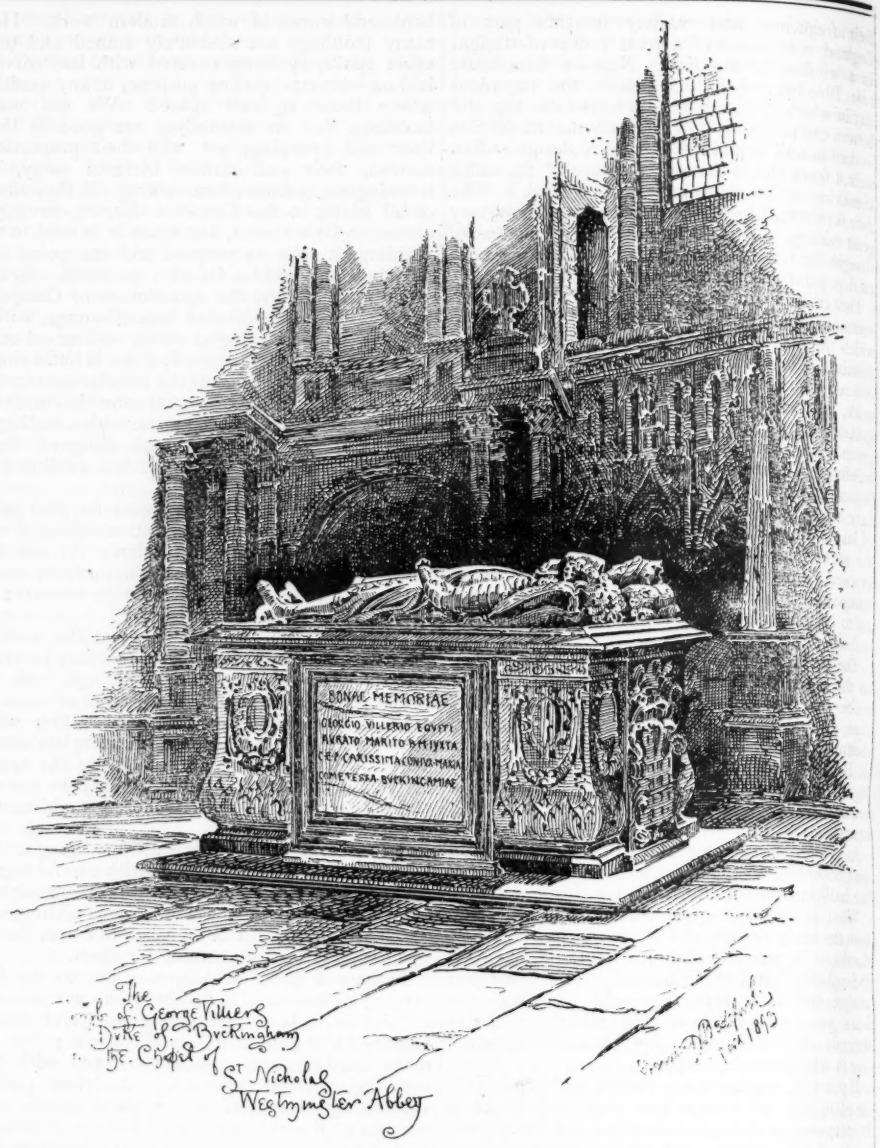
THIS drawing, which is exhibited at the Royal Academy, shows the ingle-nook and fireplace, and a small part of a new billiard-room, in a house built last year at Bungay. It is attached to an old house, and approached by means of a new garden corridor 8 ft. wide, and a special staircase. The ground floor rooms are devoted to additional offices.

The work has been chiefly done by local men, according to the express wish of the owner: the brickwork and tiling by Messrs. Read; the wood-work by Mr. Rowe and by Mr Foulger; painting and plumbing by Mr. Brownsdon; the iron-work, guttering, &c., by Mr. Richmond—all of Bungay; the plaster-work by Messrs. North, of Norwich.

The size of the room itself is 27 ft. 6 in. by 18 ft., with deep recessed windows and daïs at each end; an oriel projecting into the street on one side, and the ingle nook here shown on the other side, giving additional floor space beyond the dimensions above given.

The stamped plaster-work in frieze round the building (outside) and on the oriel window on the street front, the oak wainscotting and overmantel and marble-work, have all been executed by Messrs. Daymond & Son, of Westminster; the ornamental glazing, tile-work, and wall-hangings by Messrs. W. B. Simpson, of St. Martin's-lane; the parquetry-work by Messrs. Turpin, of Bayswater.

The architect was Mr. Bernard Smith, London.



ITTON COURT, MONMOUTHSHIRE.

IN the illustration shown, the only existing portion of the original house is the large tower, now converted into the principal entrance.

The house is of various dates, commencing with the tower, about the latter end of the fourteenth century, down to the Georgian and Queen Anne periods.

The entire new buildings shown in the drawing and on the plan, supersede uninteresting blocks of stable buildings and out-offices of quite recent date.

It was desired and felt that the character of the tower should be used as the key-note to the new work, keeping breadth and quietness especially in view.

The works are being carried out by Messrs. Cowlin & Sons, of Bristol, under the supervision of the architect, Mr. E. Guy Dawber, of London. The drawing from which the illustration is taken is exhibited at the Royal Academy.

STONE BUILDINGS OF THE COTSWOLDS.

THESE views of various old houses in the district of the Cotswolds are from photographs by an amateur, Mr. C. O. E. Saner, of Hull. They are given as illustrations to Mr. Guy Dawber's paper at the Architectural Association, to which the reader is referred.

BOURNEMEAD, BUSHEY.

THIS is the house of an artist—a pupil of the "Herkomer School." It is built of red brick, with red weather and roofing tiles, and half-timber work in the gables. The studio has a partially open timber roof. The work was carried out by Messrs. G. & J. Waterman, of Watford, under the superintendence of the architect, Mr. J. M. Brydon.

VILLAGE HALL, FOREST ROW, SUSSEX.

THIS Hall has been erected for the use of the villagers by Mr. H. R. Freshfield, of Kidbrooke Park. It is built of the local stone from Ashdown Forest, red brick, weather tiles and roofing tiles, with half-timber work in the gables and entrance porch. The principal feature is the Hall itself, which is about 45 ft. long, by 23 ft. broad, and has an open timber roof. The general contract was taken by Mr. Job Luxford, of Forest Row, the carving over the porch and in the gable being executed by Mr. Aumonier, of London—all under the superintendence of the architect, Mr. J. M. Brydon.

This drawing, like the last-named one, is exhibited at this year's Royal Academy.

"ARCHITECTURE AT THE ROYAL ACADEMY."—Mr. A. H. Tiltman writes to say that the design for Mission Church, No. 1,492 in the Royal Academy catalogue, referred to in our last notice, is by him, the name "Tillman" being a mistake in the catalogue.

TOMB, WESTMINSTER ABBEY

THE tomb of the Duke and Countess of Buckingham, Westminster Abbey, of the early part of the seventeenth century, stands in the Chapel of St. Nicholas. The figures in white marble are the work of the sculptor, Nicholas Stone, who, according to Walpole, received 560*l.* for it. His work, though somewhat florid, is refined and vigorous. The tomb has little architectural merit, but, nevertheless, it adds to the interest of the chapel.

FRANCIS D. BEDFORD.

SAINT GILES'S PUBLIC LIBRARY COMPETITION.

During the first three days of this week, the designs submitted in competition for the new Public Library for the district of St. Giles', have been on view at the offices of the Board. It was a limited competition, six architects having been invited to compete. The site is immediately adjoining the present offices of the Board, at 197, High Holborn, on the east side, and is nearly rectangular in shape. On the east of the site are Messrs. Kent's premises, separated however by a passage known as Green Dragon-yard, over which rights of way and light exist. This and the retention of certain lights in a portion of the passage leading to the Board's present offices were the chief points to be remembered in the treatment of the site.

Of the six designs sent in, the first premium has been awarded to Mr. W. Rushworth, of Palace Chambers, Westminster, Mr. W. Harrison, 64, Cannon-street, being placed second, and Mr. W. C. Marshall, of 28, Bedford-square, third. The competing architects have followed generally the instructions given by the Board in their conditions, and therefore there is a good deal of resemblance to each other in the plans in the arrangement of the various departments. The basements are devoted to storage, heating, &c. On the ground floor is the main entrance, hall, and news-room; on the first floor the lending library; on the second floor the reference library; while the floors above contain the librarian's residence and the rooms of the caretaker.

Mr. Rushworth, whose plans have been accepted, has well merited the choice made. His plan is at once strikingly simple and well arranged. The existing doorway to the offices of the Board has been taken as the keynote of the design for the frontage, and the main entrance has consequently been placed at the other, or east end of the façade. Almost immediately inside the door is the main staircase, and to the right hand the entrance to the news-room. A separate entrance for the private use of the librarian has been placed at the side, opening to Green Dragon-yard, and communicating with the main staircase, which it adjoins, at the various levels. Close to this also is the lift and ventilating shaft. The news-room itself is a spacious room about 60 ft. long, and may be best described as a rectangular apartment with the space alloted to the staircases taken out of it at the N.E. angle. The lending library on the first floor is of the same extreme length, some extra space being given to it by carrying it over a portion of the present passage to the Boards' Offices, which it was possible to build over without interfering with its present top-lights. The second floor has a good Reference Library, and above are the librarian's residence and caretaker's rooms, as before noted.

In comparing Mr. Rushworth's plan with those of the other two premiated designs, the advantage gained for the whole by the judicious planning of the principal staircase is at once apparent, the form of the principal rooms being in the other two much interfered with and spoiled by an undue extension of the staircase. In Mr. Harrison's plan the Lending Library has been considerably curtailed in size, owing to the introduction of a large top-light over the back portion of the news-room on the ground floor. The treatment of the minor staircase also is not so successfully planned as in that of the accepted design.

Of the other three designs the same feature, the staircase, has spoiled the plans from its size and position, one of the competitors having placed a large circular staircase almost in the centre of the news-room.

The elevation towards High Holborn is the only one which admitted of much architectural character being introduced. We cannot say that we think either of the designs, the selected one included, are at all satisfactory. Mr. Rushworth's front elevation, especially in its upper stages, requires some careful revision, which we hope will be done before the work is finally executed. The general idea in all the designs has been that of a central gable with windows immediately under it, lighting the centre of the principal rooms, and flanked by doorways on the ground floor (one of which exists as before mentioned) with windows over them lighting the main staircase on one side, and a portion of the principal rooms on the other. All are "Renaissance" in character, of varying merit. As a whole, we prefer the frontage of the second premiated design.

The Board, however, have undoubtedly done wisely in choosing that design which had the best and simplest plan, and with some more care devoted to the Holborn front, refining the character of its details, the accepted one will doubtless make an excellent library for the district. The estimated cost of the building is 4,500*l.*

THE ARCHITECTURAL ASSOCIATION.

THE thirteenth ordinary meeting of this Association was held on Friday evening, the 12th inst., in the meeting-room of the Royal Institute of British Architects, 9, Conduit-street, the President, Mr. H. O. Cresswell, in the chair.

Messrs. F. J. Parkinson and H. A. Douglas were elected members.

Mr. E. S. Gale, senior hon. sec., announced some donations to the library by Mr. Wonnacott, and a vote of thanks was accorded to the donor.

Mr. F. T. W. Goldsmith proposed a vote of thanks to the President for allowing the members to visit the new buildings for the *Morning Post*, as reported in our issue of the 6th inst.

Mr. Goldsmith and the President having made some observations as to future visits and lectures,

The President announced that the time for the delivery of drawings for the A. A. Travelling Studentship would be extended to July 1 at 3 p.m.; and he also reminded the members that the annual dinner of the Association would be held on May 31.

The President then called upon the senior hon. secretary to read the list of gentlemen nominated as officers and committee of the Association for the next session. The following were among the nominations: President, Mr. E. W. Mountford; Vice-Presidents, Messrs. W. D. Caröe and E. S. Gale; treasurer, Mr. H. W. Pratt; librarian, Mr. J. W. Stonhold; hon. secretaries, Messrs. F. T. W. Goldsmith and B. F. Fletcher. The result of the election will be announced at the next meeting of the Association, which will be the last meeting of the session. Messrs. E. H. Parkes, W. H. White, E. W. M. Wonnacott, and T. E. Yates were elected scrutineers to examine the balloting papers.

Mr. E. Guy Dawber then read a paper on "The Stone Buildings of the Cotswolds," which we print *in extenso* in this number, together with several of the illustrations of buildings referred to in it.

In the discussion which followed,

Mr. Roland Paul, in moving a vote of thanks to Mr. Dawber for his paper, said it had treated of a most interesting part of the county of Gloucestershire, a county which was very rich in domestic work. Chipping Campden was an exceedingly interesting place, and the village street was most picturesque. It was almost untouched, the oldest work—part of the Town Hall—being fourteenth-century work, and there were examples up to the seventeenth century. There were many interesting places round Campden, and some notable houses between it and Cheltenham, which could be reached by the line from Chipping Norton Junction. Mr Dawber had spoken of the ugliness of modern rows of houses, and he (the speaker) had often thought that when we wanted to build a row of houses we might take a useful hint from the almshouses and other buildings which we saw in old towns. Nothing could be more simple than the old almshouses near the church in Chipping Campden; they were all exactly alike and very simple in treatment—simple repetitions of good features—and the result was excellent.

Mr. Leonard Stokes said he had much pleasure in seconding the vote of thanks to Mr. Dawber for his excellent paper, which had covered rather more ground than its title, for Mr. Dawber had not confined his attention to the buildings of the Cotswolds, but had given them a very excellent lecture on the designing of houses in general. He (Mr. Stokes) was a little hazy as to where the Cotswolds began and ended, but there certainly was a little town near Stroud named Painswick which possessed some very interesting architectural remains; it was a place well worth seeing. He was somewhat surprised that Mr. Dawber had not enlarged more upon Broadway, which struck him (Mr. Stokes) as being even more interesting than Campden, although Campden had more monumental work in it. He thought that Old Broadway Church was an ideal village church. He was rather interested in Mr. Dawber's theory about plate-glass. He seemed to think that plate-glass produced colder draughts in a room than the same area of quarried glazing. He should like to feel sure that that was correct, but he did not quite see the reason for it. He should have thought that plate glass being thicker than quarried glazing would keep out the cold better; besides, the quarries were apt to get a little loose in the leading and to let the draught in. He should also like further information about the ledges in the chimneys to which Mr. Dawber had referred for the prevention of smoky chimneys. They were all very much indebted to Mr. Dawber for the excellent photographs and other illustrations with which he had illustrated his paper. The photographs, he understood, had been lent by a friend of Mr. Bilson. The whole district was very rich in interesting every-day building. There seemed to have been enough of the old buildings left to accommodate the present population, therefore one's nerves were not jarred upon by modern work cropping up amongst the old.

Mr. W. D. Caröe said he should like to support the vote of thanks to Mr. Dawber for his charming paper. He knew a little of the district referred to, but not very much. He did not know exactly whether it was in the Cotswolds, but there was one very interesting old place named Kingswood, he thought, not far from Wotton-under-Edge. There was an old building there, with a front towards the street, having a gable, and a couple of doorways below, in a sort of College-gateway style, and a traceried window on the first floor; below the transome there was a very distinctly-marked classic pilaster. With regard to the question of plate-glass windows, he could not help thinking that Mr. Stokes was right and Mr. Dawber wrong in thinking that plate glass was less draughty than lead lights. He thought that the reason why plate-glass was thought to be more draughty was that it was generally used in sash windows, which were in themselves more draughty than other forms of windows, unless very well made. He quite agreed with what Mr. Dawber had said as to providing ledges in chimneys so as to prevent down draught and smoking.

Mr. F. R. Farrow, in supporting the vote of thanks, said he had not had the pleasure of going into the Cotswold district, but he hoped that before very long that district would be selected as the scene of one of the Architectural Association's excursions.

The President having put the motion to the meeting, it was carried by acclamation. Mr. Dawber briefly replied, and the meeting terminated.

COMPETITIONS.

TECHNICAL EDUCATION BUILDINGS, STAFFORD.—At the quarterly meeting of the Staffordshire County Council, held at the Shire Hall, Stafford, on the 9th inst., Mr. H. T. Hinckes moved—"That the Technical Instruction Committee be authorised to expend the capital sums of 8,500*l.* and 500*l.* for the purposes of the erection of the new Technical Education Buildings at Stafford, and that the common seal be affixed to all necessary contracts in connexion therewith when approved by the Clerk of the Council." He said the resolution was necessary to give effect to the intentions of the County Council to put up these buildings at Stafford. After open competition amongst various architects, the committee had approved and accepted the plans sent in by Messrs. Bailey & M'Connell, of Walsall, whose estimate was 8,430*l.* In accepting the plans, the committee insisted on some minor alterations, which the architects agreed to, and that the contract should not exceed 8,000*l.* They asked sanction to spend 8,500*l.* on the building, as it was necessary to allow a margin, and they asked to be allowed to spend 500*l.* on other fittings, and hoped the expense would not exceed those two sums. Lord Hatherton seconded the motion, which, after the insertion in the resolution after "500*l.*" the words—"being part of the surplus of the sums placed at the disposal of the committee by the County Council," was agreed to.

ARCHITECTURAL SOCIETIES.

NORTHERN ARCHITECTURAL ASSOCIATION.—The annual meeting of this Association was held on April 26 last, at the meeting-room, Art Gallery, Newcastle-on-Tyne. Mr. J. H. Morton, F.R.I.B.A. (of South Shields), the President, being in the chair. There was a large attendance of members. The annual report was read and confirmed. The Committee, in drawing this Report for the 34th session, stated that they were glad to be able to place on record the more assured position and increasing prosperity of the Association. Two principal objects had engaged the attention of the Committee. 1st. The engagement of permanent rooms, in which to hold the meetings of the Association, the library, &c.; 2nd. The drawing of a curriculum of study for the younger students, and a possible alliance with the Durham College. It is hoped that this may be arranged during the next session, the Committee having been empowered at a general meeting of members to approach the College authorities with full power to negotiate the arrangements for introducing the curriculum at the College. The engagement of permanent rooms in a central position in the city has no doubt been a great step in advance, and it is now hoped that good use will be made of the room for the reading of papers, and the discussion of subjects relating to architecture and the arts generally. The Association is able to record an increasing membership—2 members, 9 associates, and 6 students have been elected during the session, the roll now standing as follows:—31 members, 41 associates, and 22 students; total, 94. In connexion with the Institute an examination qualifying for candidature as Associate of the Institute has been held in Newcastle at which six candidates entered. The Committee of the Institute are thanked for sending a selection of prize drawings, which were duly exhibited. The following members of the Association have passed the Royal Institute of British Architects Preliminary Examination:—Messrs. E. J. Watson, E. Devereux, W. Reed, and M. Martinson. Messrs. A. Shaw and C. Rochester have passed the Intermediate Examination. Excursion meetings have been held at the New Station Hotel, Newcastle, at the Village of Blanchland (old church, &c.) at Messrs. Potters' Cement Works, and the restored church at Wallsend. On December 21 a paper was read by Dr. Gibbon on "Pompeii Past and Present"; on January 11 Mr. J. Brown read a paper on "Varnishes," and exhibited a collection of gums and other materials; on February 1 Mr. Charlwood read a paper on "Stokesay Castle," illustrated by a series of carefully-prepared drawings and water-colour sketches; on February 15 Mr. W. S. Hicks read a paper on "Fashion in Architecture"; and on March 1 Mr. A. B. Plummer read one on "Waltham Abbey," illustrated by a series of measured drawings. Papers have also been read at the students meetings, and in all cases illustrated by sketches on the blackboard, viz.:—On "Heraldry," by Mr. J. Twist; "Gothic Mouldings," by Mr. Errington; and on "Perspective," by Mr. Boyd. The sketching club have held visits and return visits at Seaton Delaval, Hexham Abbey, and Ponteland, and the annual social evening was held on January 24, when eighty-five members were present. The Financial Statement shows a balance in hand of £85. At the annual meeting, April 26, 1893, and the following gentlemen were elected to the offices for the ensuing session:—Mr. J. H. Morton (President); Messrs. J. Oswald and T. Cresswell (Vice-Presidents); Mr. J. T. Cackett (Treasurer); Mr. A. B. Plummer (Hon. Secretary); Messrs. H. Charlwood, W. S. Hicks, W. H. Knowles, F. Rich, J. Tayler, H. Badeswick, and G. T. Brown (Committee); and Messrs. W. Glovier and J. Twist (Auditors). The resignation of the late Hon. Secretary, Mr. F. W. Rich, was received with regret.

HIGHGATE SANITARY MUSEUM.—A number of students from the plumbing classes connected with the Goldsmith's Institute and the Croydon Polytechnic visited the Museum of Sanitary Appliances at Highgate on Saturday last, the 13th inst. They were met by Mr. Thomas de Courcy Meade, M.Inst.C.E., the Engineer and Surveyor to the Hornsey Local Board, and Mr. Taylor, R.P., one of the gentlemen engaged in giving lectures on plumbing at the Museum in connexion with the Technical Education Committee of the Middlesex County Council. After spending some three hours there in examining the exhibits the students left, expressing their appreciation of the completeness of the museum and the excellence of the exhibits.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of this Council was held on Tuesday afternoon last, the Chairman, Mr. John Hutton, presiding.

Rates of Wages and Hours of Labour.—The Report of the Special Committee on this subject (printed in last week's *Builder*, p. 371) was discussed at considerable length, and the recommendations of the Committee, added to by an amendment moved by Sir Thomas Farrer and accepted by the Chairman of the Committee, were agreed to. By the adoption of Sir Thomas Farrer's amendment, the second resolution reads as follows (Sir Thomas Farrer's words being printed in italics):—

"(2.) That, for the purpose of carrying into effect the above standing order, the following words be added to standing order No. 1—"and by contractors in respect of the supply, manufacture and production of any raw material or manufactured articles, except contractors for the supply of stores to be used in maintenance, *provided that in the case of articles manufactured at places more than 20 miles from Charing-cross the London rates of wages and hours of labour shall not apply or be required although the articles are supplied within that limit.*"

The Widening of Ludgate Hill.—The Improvements Committee brought up the following report:—

"We have had before us an application from the City Commissioners of Sewers for a contribution towards the cost of acquiring the premises Nos. 1, 3, 5, 7 and 9, Ludgate Hill, and No. 1, St. Paul's-churchyard, with a view to the completion of the widening of Ludgate Hill. The Commissioners call attention to the importance of the improvement, and they make their application on the ground of the metropolitan character of the work. The improvement provides for the eastern end of Ludgate Hill, between Creed-lane and St. Paul's-churchyard, to be increased in width from 42 ft. to 60 ft., so as to correspond with the present width of the other portion of the thoroughfare, the estimated cost of the work being 89,920*l.* We may mention that in accordance with the Council's resolution of November 26, 1889, this application has been made to and considered by us in exactly the same manner as are applications for contributions to improvements in other parts of London. It must be admitted that the widening of Ludgate Hill has been necessitated not by local but by general through traffic going to and from all parts of the county, the street in question being one of the principal thoroughfares between the east and west of London. We are of opinion that the necessity and importance of the improvement, and the fact that it is one in which the inhabitants of London are interested, thoroughly justify us in recommending the Council to accede to the application of the Commissioners. We consider that the widening of such a thoroughfare as Ludgate Hill is an improvement of so decidedly a metropolitan character that the Council can well be advised to contribute at least half the cost. We have satisfied ourselves that the estimated cost is fair and reasonable, and we therefore recommend—

'That, subject to an estimate being submitted to the Council by the Finance Committee as required by the statute, the Council do contribute, on the usual conditions, one-half of the net cost of widening Ludgate Hill at Nos. 1, 3, 5, 7 and 9, and at No. 1, St. Paul's-churchyard, as proposed by the City Commissioners of Sewers, such contribution not to exceed the sum of 44,960*l.*'"

Mr. Hubbard moved the following amendment:—

'That, considering that the ratepayers in the City are less heavily rated for the expenditure of the Council than the ratepayers in other parts of London, and that between the years 1856 and 1889 the City authorities received from the late Metropolitan Board of Works 572,794*l.* 3s. 9d. out of a total of 975,471*l.* 14s. 7d. contributed by that body towards the cost of local improvements (the annual charge resulting from which is still being borne by the whole of London), the Council is not prepared to contribute towards the cost of the City improvement referred to in the report.'"

After a long debate, the amendment was carried, on a division, by 60 votes for to 46 against.

After transacting other business (sitting till nearly half-past nine) the Council adjourned over the Whitsuntide recess until Tuesday, June 6.

THE ARCHITECTURAL ASSOCIATION *SOIRÉE.*

THE Members' *Soirée* of the Architectural Association was held on Wednesday evening last at the Westminster Town Hall, and was, as usual, very largely attended. The entertainment provided consisted of a "play" of the sort which has been looked for as a matter of course during the last few years, and there can be no doubt that under the auspices of the A.A. Lyric Club (who were the caterers on this as on the last two or three occasions of the kind) a great deal of latent histrionic and vocal ability has been developed.

The play performed on Wednesday night was described on the "bill" as "a painfully-new and original Medley by Theo. Moore and Ernest Rüntz, entitled Mythology Run Mad, or Les Chumps de Mars." It consisted of a prologue and two acts. The scene of the prologue was "On Earth" at the London Terminus (designed by the Soane Medallist) of the "Lightning Streak Railway"; but Acts I. and II. were described as taking place in Mars, Act I. on "a rampart of the Acropolis," time morning; Act II. before "the Parthenon restored: another part of the Acropolis," by moonlight. The *dramatis personæ* were: *Immortals*—Zeus, Mr. F. T. W. Miller; Pheidias ("a reformed Memorialist"), Mr. A. C. Bulmer Booth; Sir Christopher Wren ("warmed up for the occasion"), Mr. J. Dixon Butler; Joseph Gwilt ("a confounded nuisance"), Mr. F. W. Marks; Mercury ("a recently-deceased architectural policeman"), Mr. P. J. Sutton; Cupid, Mr. F. Lindsay Sutton; The Adelphi Oracle, F.O.S., by The Oracle; and Venus, Mr. Frank Galsworthy. *Mortals*: Leonard Aloysius ("a poetic craftsman"), Mr. Ernest Rüntz; Jonathan Gin Cocktail ("a Chicago *entrepreneur*"), Mr. C. H. Brodie; Mrs. Moriarty ("of Co. Dublin"), Mr. Theo. Moore, and Josephine ("a *vingtième siècle* party—sister to Leonard), Mr. H. Seton Morris. The play was somewhat disjointed and "mixed" as to its plot, but the dialogue and songs served as vehicles for some very free and easy "topical" allusions to persons and things architectural. Of course Lord Grimthorpe came in for a quip, and Gwilt's "Encyclopœdia" was another familiar butt. A "hit" at the Lord Chief Justice, *apropos* of his recent remarks in Court concerning the Institute; some jibes about the "Liberator" Building Society directors; and some plain speaking about the "Memorialists," were among other points made. Regarding the controversy raised as to whether architecture is an art or a profession, Gwilt explained his views by reciting some lines after Macaulay. We quote a few lines as a sample of the whole:—

—— "artists in Art's service
Did not so carp and scold,
Nor snarl and bite, nor yell and fight,
In the brave days of old.

Then none were for a faction,
Then all were for their Art;
Then the craftsmen helped each other,
And heart communed with heart.

Then jobs were fairly portioned,
Then all were in one fold;
Oh! Architects were brothers
In the brave days of old!"

Much credit is due to Mr. Percy D. Smith for the scenes, which were painted by him. In the scene before which Act I. was laid a grim joke was perpetrated by painting the Eiffel Tower on the Acropolis alongside the Parthenon.

The whole of the actors acquitted themselves admirably, and, with the authors, were enthusiastically called before the curtain at the close of the performances.

THE SANITARY INSPECTORS' ASSOCIATION:

CREMATION ABROAD.

THE usual monthly meeting of this Association was held on Saturday, May 6, at Carpenters' Hall, London-wall, when Mr. Hugh Alexander, Chairman of the Council, presided, and Mr. T. G. Dee, Sanitary Inspector of St. Margaret and St. John's, Westminster, read a paper on "Cremation Abroad." There was a large attendance of members. The lecturer said he had been impressed during the Paris visit of last Whitsuntide with the superiority of the methods in force in that capital (except in regard to the Morgue) in comparison with our own methods of disposing of the dead. The cleanliness and the completeness of equipment of the mortuary visited at Père-la-Chaise cemetery must have favourably impressed every visitor. The crematorium was employed far more frequently in Paris, with a much smaller population, than in London, no fewer than 5,000 cremations taking place annually in the former city. The form of apparatus generally adopted in France was first proposed by MM. Mullet and Fichet, in 1875, and a model was shown in the Paris Exhibition of 1878, the chief features of which were (*a*) a retort producing carbon monoxide, and (*b*) a fire-clay muffle placed in a chamber resembling that of a reverberatory furnace. A current of very hot air, together with carbon-monoxide, is admitted into the muffle in which the body, in its coffin, is placed, combustion at a very high temperature being sustained by the beating back of the gases at the reverberatory bar. A sufficient stream of pure air is admitted to prevent smoke, and it must be continuous in order to afford the necessary amount of oxygen to completely oxidise the exposed surfaces of the body in successive layers, as its bulk becomes smaller and smaller. Several other forms of furnace, the details of construction of which are given in the work of Dr. Christoforis of Milan, were briefly described, differing from each other in some respects, and all differing from the French method, in employing for the calcining process, air charged with the gases of combustion, and, therefore, more or less poor in oxygen, instead of pure air containing its due proportion of oxygen. In the Gorini furnace the corpse (uncoffined) is exposed for two hours to long flames, produced by burning wood and charcoal. In the Polli and Clericetti furnace, ordinary gas, applied through Bunsen burners, is employed, the expense being considerable. In Melsen's system, used at Brussels, the body is calcined in one furnace, and the resulting

smoke and gases are consumed in passing through a second furnace. In the system of Dr. Lemoyne, practised at Washington, the body is placed in a retort, heated from the outside and burned, like charcoal, without admission of air. Thirteen chemical elements, besides traces of lead and aluminium, are contained in definite proportions in the human body, 70 per cent. being water, about 18 fatty and other tissues, and 12 per cent. bone. The principal expenditure for fuel results from the necessity of producing preliminarily a very high temperature, the loss of heat from the evaporation of the water, the radiation of heat and the loss of heat by the chimney. In a crematorium like that at Père-la-Chaise, the loss is represented by about 28 lbs. of coke per hour, but by taking proper measures this loss might be reduced by one half. The best results with a minimum of fuel are obtained when a recuperator is used. The lecturer described the construction of the recuperator, the arrangements for the supply of air and heated gases, and for preventing the egress of smoke or flame in the sight of the mourners which arise from a wooden coffin the moment it is introduced into a chamber heated to a temperature of 700 C. or 800 C. The duration of the operation at Père-la-Chaise, where the furnace is capable of treating three bodies at once, is one hour in case of single bodies and one and a-half hours for three bodies. Every precaution possible is taken that every portion of the operation is done silently, solemnly, reverently, "decently and in order," the mourners usually devoting one hour in the chapel to devotional exercises, and then receiving the revered remains (now rendered pure and harmless), in a small urn, the opening of which is sealed with a decoration of ribbon fastened with a wax impress of the seal of the City of Paris. The urn is finally placed, with a stone tablet epitaph, in its own sealed recess, in an extensive colonnade. These methods contrasted very favourably with those in use in this country. If they were introduced, the nation might, by the efforts of sanitarians, be educated up to more sanitary and scientific modes of disposing of the dead, and the existing prejudices against cremation, which had been unhappily deepened by the eccentricities of a late Arch-Druid, might eventually be eradicated.

A discussion followed upon the proposal of a vote of thanks, in which the Chairman, Mr. Fairchild (Chelsea), Mr. Young (Battersea), Mr. Jackling (Maidstone), Mr. Osborne (St. Pancras), Mr. West (Walthamstow), Mr. S. Legg (hon. sec.), and other members took part, the majority of the speakers being strongly in favour of cremation.

A conference of members was subsequently held, in which the arrangements for holding the annual provincial meeting at Maidstone, this Saturday, the 20th inst., were discussed. The members will be received at 11.30 by the Mayor at the Town Hall, and a sitting will be held, with the President (Dr. Richardson) in the chair, at which Dr. M. A. Adams, M.O.H., and Mr. W. G. Scoones, C.E., Borough Surveyor, will deliver addresses. In the afternoon visits will be paid to the Maidstone Sewage Works and the Pumping Stations at Forstall and East Farleigh, under the direction of Mr. Alderman C. Ellis, Mr. W. J. Ware, C.E. (the Manager), and Mr. Jackling, Sanitary Inspector. The members of the Association will be entertained in the evening by the Mayor of Maidstone.

Books.

Theory of Structures and Strength of Materials. By PROFESSOR H. T. BOVEY, D.C.L. New York: John Wiley & Sons. (1893.)

THIS volume forms a practical text-book for students desirous of acquiring a knowledge of the principles of Applied Mechanics connected with the design of Structures. Though provided with a suitable index, it is a book that requires to be read from beginning to end, rather than in detached paragraphs. Framed structures, earthwork and retaining walls, bridges and arches, are dealt with, and the general principles of their strains and stresses explained. At the end of each chapter some practical examples are presented for solution, the answers to the problems being furnished upon the same page, a method we commend as more instructive for a practical student than if given upon a separate page at the end of the volume, like a school-book. The author quotes his authorities, and has endeavoured so to arrange the letterpress that a student may omit the advanced portions upon the first perusal, and obtain a complete elementary course in natural sequence. The various tables in the volume have not been copied from old published records, the results of which have become more or less obsolete, but give evidence of having been compiled from the most recent and reliable results. Hinged girders, pivots, gearing, and springs are examined fully, and the theorem of three moments in connexion with continuous girders ably set forth. The book possesses the advantage of presenting both the mathematical as well as the graphic methods of determining results, and the student is led to compare the result of one method as a check upon the other. In dealing with the subject of columns, the author states, the experiments made in America prove, as those of Hodgkinson and others in this country have also shown, that the strength of iron and steel pillars is not only dependent upon the ratio of length to diameter, and on the form of the cross section, but also on the proportion of parts, details of design, workmanship, and on the quality of the material of which the columns are constructed. The American experiments also seem to lead to the conclusion that Gordon's formula is more correct as modified by Rankine; and that, "in the case of columns hinged at both ends, Rankine's formula, with the constant assumed at double the value it has when the formula is applied to columns with flat or fixed ends, is practically correct." The diagrams in the volume are both clear and adequate.

The Student's Introduction to Mechanics. By ROBERT SCOTT BURN. London: Ward, Lock, Bowden, & Co. (1892.)

THIS volume contains a series of papers by various writers, intended to show the leading principles of physical science for the instruction of those engaged in the design and construction of machines, tools, and appliances useful in the industrial arts, and has been compiled by the editor from papers which in the first instance appeared in "The Industrial Self-Instructor." The book furnishes a series of short paragraphs, each with a suitable heading, characteristic of the matter which follows. These headings are arranged in the order of pages to form a table of contents at the commencement of the volume. There is no alphabetical index; an omission which is better than having an index unsystematically arranged. The book is full of definition, but the reader is recommended "as his best course of action, at least at the beginning of his study, not to take up time by trying to reconcile—or to understand—the difficulties caused by opposing, contradicting, or confusing definitions," for "it is," as stated by the author in another paragraph, "one of the difficulties in arranging a description of the science of mechanics, in which the subjects will be perfectly consecutive, that terms are of necessity used in discussing one subject before they can be fully explained, and which can only be done in discussing another subject, and that, the one to which the terms naturally belong." The difficulty, however, is grasped by the advanced student. The first part of the book is written in a very argumentative style, and this portion of the volume is more suitable for those who have studied the subject than it is for beginners; but the book becomes more interesting when the illustrations begin. Mathematical equations are not introduced, and the volume presents itself as a readable book for those desiring to extend their power of thought, while simultaneously studying more elaborate text-books.

The Steam Engine and Boiler. By D. KINNEAR CLARK. London: Blackie & Son (Limited). 1892.

THIS treatise provides in two volumes a detailed description of the principles and performance of steam boilers, steam engines, their construction and comparative merits, illustrated by above 2,000 figures in the text, and a series of folding plates, twenty-one in number. It comprises a very full account of the principles and practice of the combustion of fuel, with the economical generation of steam and its application to stationary, portable, locomotive and marine engines of recent date. The engines alluded to are of every variety—simple, compound, and multiple-expansive, while the boilers, likewise, are of numerous types—Cornish, Lancashire, Galloway, and other systems: the Cornish type, with a single cylindrical tube, and the so-called "Lancashire," with its double flue cylindrical boiler and globular or spherical-shaped ends, varied in the Galloway boiler by the wide, segmental, kidney-shaped flue tube into which the furnace tubes are merged, which reaches from the point of junction of the tubes to the far end of the boiler, and is traversed by closely set water tubes or pipes. Other details in these systems are also compared, and the vertical boiler system ably dilated upon. The author has spared no pains in his references to British, American, and Continental works. Chapters are furthermore devoted in his investigations to the principles of rivetted joints, forming single-welt and double-welt connexions, the strength of shells and flat-plate surfaces, the resistance of flue tubes, the action of governors, valve gear, and the important details connected with the equilibration or balancing of engine work. The comprehensive character of the volumes is fully indicated by a glance at the synopsis of contents, while reference thereto is rendered easy by a well-studied and carefully-compiled index of subject-matter and of authorities contained at the end of the second volume. The work is thoroughly practical, and a valuable list of tables, interspersed in the letterpress of both volumes, is provided.

Correspondence.

To the Editor of THE BUILDER.

COTTINGHAM'S HOUSE AND MUSEUM.

SIR,—The house, formerly No. 43, Waterloo-road, mentioned in one of your last week's "Notes," was built by L. N. Cottingham (*obiit* 1847), who, *circa* 1825, laid out an estate on the south side of Waterloo Bridge, in St. John's Parish, for John Field, of Tooting. There he kept his collection of original, and cast, specimens of Mediæval architecture and art, with examples of carvings, metal-work, furniture, &c. A catalogue (by H. Shaw, I believe) was twice printed: in 1850 for Christie & Manson; in 1851 for Foster & Son, who in November of the later year sold, at auction, the museum, consisting of 2,205 lots. These included the ceiling and roof, with its louvre, of the Council Chamber, Crosby Place, or Hall, and the windows (Decorated) of St. Katharine's by the Tower. The catalogue is illustrated.

The "Nun's-walk," and "cell" cited by the *Pall Mall Budget*, may be perhaps explained by the fact that Cottingham's house was built within the area formerly covered by Cuper's-gardens. Waterloo-road was driven through the middle of the Gardens, which extended from the Belvedere-road, *olim* Narrow-wall, to St. John's Church, in the burial-ground of which some of the trees, it is said, still remain. A plan of the site as in 1746—seven years before the Gardens were closed—was published by R. Wilkinson in 1825. Visitors by water landed at Cuper's-bridge (or stairs), close by the old "Feathers" tavern. From 1636 to 1649 the Gardens formed the garden of Thomas Howard, Earl of Arundel and Surrey, which was taken by Boydell, or Boyder, Cuper, the Earl's gardener. The ground was next rented of Jesus College, Oxford, at 1,200*l.* per annum, by Mark Beaufoy, for his vinegar and British wines factory. On the opening of Waterloo Bridge and its approaches, Messrs. Beaufoy removed to South Lambeth. Numerous views and water-colour drawings of the Gardens, and of the Beaufoy factory, showing the old orchestra, by De Cort, G. Shepherd, C. Tomkins, and others, may be seen in the Soane and British Museums.

W. E. D.-M.

May 15, 1893.

SHOULD BRICKLAYERS TILE?

SIR,—Pray caution your readers against accepting the rather "bumptiously" given advice of "Wat Tylor." Anyone who remembers the hurricane of about fourteen years ago, and its effect upon tiled roofs in London, will think twice before he gives up nailing and a certain amount of bedding. Anyone who knows what wind and wet together are capable of, will hesitate about substituting a perishable cement fillet for lead soakers or for lead sunk gutters up the rakes of tile roofs.

The feather-edged boarding which Mr. "Wat Tylor" approves in lieu of of battening may have advantages. I remember its introduction nearly twenty years ago in London. But there is so much bother about getting any "wood goods" properly seasoned, that I am disposed to prefer the sawn battens; they cannot twist in the sun, and they permit the underside of the tiling to be seen and got at if need be for repairs.

Of course the necessity for nibs, nails, pegs, mortar, hay, or other bedding, battens, boards, felt fillets and soakers must vary with the locality in which we build.

R.

May 10, 1893.

THE SWEET REASONABLENESS OF THE TRADES-UNIONIST.

SIR,—In November last, at the Camberwell new Workhouse buildings, two of our navvies joined one of the trade unions under the threat that unless they did so a strike would ensue.

On the 9th inst. the whole body of 200 workmen of all trades struck, owing to our refusal to discharge one of these men, against whom we had no complaint, the reason alleged being that he was unwilling to pay up arrears of his union subscriptions—a false charge, as we have since learned, certainly a matter we could in no way recognise.

By a system of coercion, we understand, the unionists have succeeded in inducing, willy-nilly, nearly all our people on that contract to join their ranks, and their leaders have intimated to us that they will endeavour to compel employers in future to

employ none but union men, adding that several leading contractors whom they named had already, to avoid difficulty, instructed their foremen to employ none but ticket men.

Employers will have enough to do if they are to interfere in the domestic broils of their workpeople, and hold an enquiry over every new man they set on, to find out (1) whether he is a unionist; (2) whether he belongs to the right union; (3) whether his subscriptions are in arrear.

In the present case the leaders could not defend the matter on the grounds of justice, but appealed to us as to the expediency or otherwise of opposing the men's wishes.

We apologise for troubling you on this matter, but think that such an arbitrary and unreasonable piece of tyranny should be made public.

F. & H. F. HIGGS.

*** Since this letter was put into type we learn from Messrs. Higgs that "the ostensible reason for the strike of workmen referred to having been found to be baseless, the union organisations appear to have discountenanced the movement, and the men, after remaining out a week, have applied for reinstatement, which in 90 per cent. of the cases has been granted. The whole matter arose from unreasoning prejudice against one man."

TECHNICAL EDUCATION.

SIR,—May I crave a small space in your valuable paper to air a grievance? For some years past I and several of my friends (for whom I write) have as bricklayers been applying ourselves to the technical subject of brickwork and masonry, and trying to pass the examination. Now, sir, we find that the questions set are not such as to prove a man's technical knowledge; they are very suitable for architects and draughtsmen, so that young men in an architect's office can pass the examination with flying colours, whereas an acknowledged clever mechanic who has been at his trade twenty years or more is plucked. The examination is held on a Wednesday evening from 7 to 10, so that after rushing home from work, brushing up and getting to the Institute, we feel quite unfit. We are supposed to do nine questions (all sketches drawn to scale) in three hours, but to do them properly (see Nos. 1, 3, 5, 6, 7, 10, 12, 13, 14 in Ordinary grade, and all questions in Honours grade, with the maximum of 30 marks) would take a good draughtsman three hours to do two of the above questions properly, so what earthly chance has a mechanic got after using his rough tools all day, the questions, too, often put in language such as cannot be properly understood by men of very elementary education?

Perhaps you will think me bold in making such a sweeping assertion, but there are hundreds of plumbers, carpenters, and bricklayers who agree with me, that technical education, in most subjects, as far as examinations are concerned, is a failure and a farce.

The technically skilled mechanic *does not* and *cannot* pass the examination.

In conclusion, if technical education is to become popular, the mechanic for whom it is intended must be given a chance. I enclose examination papers, which I will ask you to kindly return. Thanking you in anticipation for your kindness in publishing this,

BRICKLAYER.

*** Our correspondent is mistaken in thinking that "it would take a good draughtsman three hours to do two of the questions properly;" nothing of the sort is the case. Finished drawings are obviously not required; only intelligible and clear diagrams to scale. The examination paper sent is one of the City and Guilds of London Institute, on "Brickwork and Masonry." We can quite believe that many men who are very efficient with their working tools, and practically understand their business, may find great difficulty in expressing their ideas on it with pen and pencil, but the faculty of doing so is the only practical test which can well be taken in an examination of this kind, and the best proof that a man really understands the reason for what he is doing.—ED.

MIDDLESEX COUNTY COUNCIL OFFICES, WESTMINSTER.

SIR,—This new building of red brick and stone has now had the scaffolding cleared away from it; it promised to be effective and satisfactory for its position, but is now most hideously covered with a thick white frosting from some chemical action in the bricks and mortar. We are used to a moderate amount of this white furring, which gradually ameliorates and soon passes away, but here the effect is extraordinary, and in large parts the brickwork appears as though it had several coats of limewhite. Would the architect inform us what bricks were used, and exactly what lime or cement, and sand, to enable us to avoid such a combination, as I have no doubt he will in future?

Is it proposed to use any means to remove this disfigurement? Would a fire-engine with some chemically prepared water effect any improvement?

R. W.

*** We had already noticed and lamented this unfortunate disfigurement of the walls, which has taken place to a quite unusual extent. Some information from the architect might be very useful to others who have met with similar misfortunes.—ED.

EXTENSION OF CHURCH, WEST DULWICH.

SIR,—In your R. A. notice you ask "which is the extension?" Everything shown on the drawing is the extension. It consists of two bays of nave and aisles; a baptistery at the west end separated by a triple arcade from the nave, and flanked by two porches.

EDWIN T. HALL.

The Student's Column.

CHEMISTRY.—XX.

Compounds of Iron.

THE three principal oxides of iron are:—

Ferrous oxide FeO.
Ferric oxide Fe_2O_3.
Magnetic oxide Fe_3O_4.

Ferrous oxide, or protoxide of iron, FeO, is very unstable, owing to its great affinity for oxygen. It rapidly combines with atmospheric oxygen to form ferric oxide. Ferrous salts, such as ferrous sulphate, are more stable, but also have a tendency to change to ferric salts.

Ferrous sulphate, commonly known as *green vitriol* ($FeSO_4+7H_2O$), is obtained by exposing heaps of iron pyrites (FeS_2) to the action of the air—

$$FeS_2+7O+H_2O=FeSO_4+H_2SO_4.$$

It is also formed when iron is dissolved in sulphuric acid. Ferrous sulphate is largely used in the preparation of inks, Prussian blue, black dyes, &c. It is sometimes sold in commerce under the name of *copperas*.

Ferrous sulphide, FeS, is formed when metallic iron is heated with sulphur, as a black amorphous mass. When brought into contact with hydrochloric or dilute sulphuric acid, it is decomposed, and sulphuretted hydrogen is liberated. Iron pyrites is a native disulphide of iron, FeS_2.

Ferrous carbonate, $FeCO_3$, is found native in spathose and in clay ironstone.

Magnetic, or *Black iron oxide*, Fe_3O_4, is found native as loadstone, and is formed when steam is passed over red hot iron.

Ferric oxide, Fe_2O_3, occurs in Nature as hæmatite. In the hydrated form, ferric oxide occurs as bog ore, which is very abundant in Ireland. Ferric oxide is of a reddish colour; it dissolves in acids to form ferric salts. Ferric oxide is largely used for red paint, and in extremely fine powder it forms the jeweller's "rouge," which is used for polishing. The Irish bog ore is used in large quantities for purifying coal gas from sulphuretted hydrogen.

Ferric chloride, or perchloride of iron, Fe_2Cl_6, is obtained in solution when ferric oxide is dissolved in hydrochloric acid. It is used as an antiseptic and as a deodorant.

Symbol Co. *Cobalt. Atomic Weight* 58·7.

The metal cobalt is found in small quantities in meteoric stones. The principal ores of cobalt which are found native are: Speiss cobalt, which is an arsenide of cobalt ($CoAs_2$), and cobalt glance, which is a sulp-arsenide of cobalt (CoAsS).

Metallic cobalt somewhat resembles iron in its colour and chemical properties.

Cobaltous oxide, CoO, or protoxide of cobalt, is a greenish powder which dissolves in acids to form a series of pinkish-coloured hydrated salts. Zaffre, which is used for imparting a permanent *blue* colour to glass, is an impure cobaltous oxide.

Cobaltous Nitrate $Co(No_3)_2$ in the anhydrous condition is a blue salt. It may be obtained in the form of rose-coloured crystals by dissolving cobaltous oxide in dilute nitric acid and concentrating the solution by evaporation.

Nitrate of cobalt solution may be used as a "sympathetic" ink. When dry, the writing is of a very pale pink, but if warmed, it turns to a very visible dark blue, which, however, fades again upon cooling and absorbing moisture from the air. This property of cobalt nitrate is sometimes made use of in painting flowers, views, &c., which assume a blue colour when the air is dry, but change to pink when the atmosphere is so saturated with water that rain may be expected.

Symbol Ni. *Nickel. Atomic Weight* 58·7.

Nickel is more abundant than cobalt. Like cobalt, it is found in small quantities in the metallic state in meteorites. The principal nickel ore is the arsenide, NiAs, known as kupfernickel. Nickel is a silver-white metal, and is capable of assuming a high polish, which is remarkably permanent. It is ductile and malleable, and requires a high temperature to fuse it. It has many properties in common with cobalt and iron. It is extensively used for electro-plating, and alloyed with copper and zinc as German silver. The metal is soluble in the common acids, forming green *hydrated* salts, and yellow *anhydrous* compounds.

Symbol Mn. *Manganese. Atomic Weight* 55.

Manganese occurs in combination with oxygen as a black oxide, termed pyrolusite, MnO_2; other compounds are also found, but in less abundance. Manganese is a very hard and brittle, reddish-grey metal. Alloyed with iron, it is used in the manufacture of steel.

Black Oxide of Manganese, or manganese dioxide, MnO_2, is used in large quantities for manufactnring chlorine.

Manganate and Permanganate of Potassium. Green potassium manganate, K_2MnO_4, is obtained by fusing together potassium nitrate, hydrate, and manganese dioxide. Potassium manganate is readily soluble in water, and forms a green solution (chameleon liquor), which is changed to pink colour by contact with an acid on account of the formation of potassium permanganate ($KMnO_4$). In practice, the permanganate is prepared by passing carbon dioxide into a solution of the manganate until the solution becomes acid; the solution is evaporated, and yields dark purple crystals. Both manganates and permanganates are effective deodorants for sewage, &c.

Manganate and permanganate of sodium is prepared in the same manner as the potassium salts, but caustic soda is substituted for caustic potash.

Symbol, Cr. *Chromium. Atomic Weight*, 52·4.

Chromium is a constituent of many minerals, but is by no means abundant. The most important ore is chrome ironstone, $FeOCr_2O_3$. A lead chromate, $PbCrO_4$, is also found native.

Chromium Sesquioxide, or chromic oxide, Cr_2O_3, is a dark green infusible powder, insoluble in water, which is extensively used as a pigment and for calico printing.

Potassium Chromate, K_2CrO_4, is obtained by fusing chrome iron ore with potassium carbonate and lime in contact with air.

Potassium Bichromate, $K_2Cr_2O_7$, is made by treating the yellow mass thus obtained with hot water, and the resulting solution of chromate with sufficient sulphuric acid to combine with half the base.

$$2K_2CrO_4+H_2SO_4=K_2Cr_2O_7+K_2SO_4+H_2O.$$

As the solution cools, the bichromate crystallises out in orange red crystals. Potassium bichromate is a powerful oxidising agent, and is used in dyeing and calico printing, for tanning, photography, and in the bichromate galvanic battery.

Symbol Sn. *Tin. Atomic Weight*, 118.

Tin is not found native in the metallic state, but is obtained from the ore termed *tin*, *stone*, or *cassiterite*, which is a dioxide of tin found in Cornwall, India, Mexico, &c. This native dioxide (SnO_2) always contains a considerable amount of impurities. The ore is first broken up, and from the heaps thus obtained the richest lumps of ore are removed by hand-picking, while the less pure portion is crushed to a powder in a stamping mill, and from this powder much of the clay and earthy matter is washed away by exposing it to a stream of water. The tin ore, which usually contains sulphides of iron and copper in addition to arsenic as impurities, is next roasted to expel the arsenic, and to convert the iron sulphide (pyrites) into oxide of iron and the copper sulphide partially into copper sulphate. The mass which has been roasted is then exposed for a few days to the action of air and moisture, in order to convert the remainder of the copper sulphide, by oxidation, into copper sulphate, which, being very soluble in water, is removed by washing the ore. A considerable portion of the iron oxide is also removed by washing the ore in a stream of water.

Metallic tin is obtained from this purified ore by smelting it with about one-sixth of its weight of powdered charcoal and a little lime in a reverberatory furnace. The lime forms a fusible slag with any earthy impurities remaining in the ore, while the carbon unites with the oxygen of the tin ore, leaving the tin in an uncombined state:—

$$2SnO_2+2C_2=4CO+Sn_2.$$

This crude metal, which contains iron, arsenic, and copper, is purified by re-heating the ingots of metal to a moderate temperature in a furnace with a sloping bed.

The comparatively pure tin fuses first and runs down the bed of the furnace, while the impurities,

which form a more infusible alloy with a portion of the tin, do not melt, but remain in the upper part of the furnace. Finally, the metal is often further purified by remelting it and plunging logs of wet wood into the molten metal, thereby causing an agitation which resembles boiling to take place, and the remaining impurities rising to the surface of the metal are skimmed off.

Tin is a lustrous white metal which tarnishes very slowly on exposure to damp air. It is soft and very malleable, but is not very ductile, and possesses a very low tensile strength. Tin is easily fused, is soluble in strong hydrochloric acid, and by nitric acid is converted into an insoluble white powder which, when dried, yields the tin dioxide (SnO_2), known as "putty powder," which is often used for polishing glass.

Tin is mostly employed for covering iron and copper, to protect their surfaces from the oxidising influence of moist air.

Tin Plate is sheet iron coated with tin. The sheets of iron are first thoroughly cleansed by "pickling" in dilute sulphuric acid, then dried and twice dipped into a bath of molten tin, and finally immersed in a bath of strongly-heated tallow. The immersion in tallow causes the excess of tin adhering to the iron to run down and collect on the lower edge of the plate, from which it is easily removed.

Tinned Copper.—Before tinning copper vessels, the copper is first cleansed by rubbing it while hot with sal ammoniac, and then it is sprinkled with resin. Molten tin is then spread over the copper with a brush made of tow.

Mirrors, or "looking-glasses," are made with an amalgam of tin and mercury. Many of the useful commercial alloys contain tin as a constituent.

Tin forms two oxides—viz., stannous oxide, SnO, and stannic oxide, SnO_2, from which a series of stannous and stannic salts are obtained.

Stannous Chloride, $SnCl_2$, is perhaps the most important stannous salt. It is obtained by dissolving tin in hydrochloric acid. With chloride of gold solution it gives the precipitate known as "purple of Cassius," which is employed for imparting a purple colour to glass.

Mosaic Gold, which is used as a bronze powder, is disulphide of tin, or stannic sulphide, SnS_2.

Symbol Sb. *Antimony. Atomic Weight* 122

Although antimony is occasionally found in the metallic state, it is almost wholly obtained from the ore called *stibnite*, which consists largely of antimony trisulphide, Sb_2S_3. The trisulphide is separated from the remaining portion of the ore, by heating the ore in vertical retorts which are perforated at the bottom, when the trisulphide melts and runs out through the apertures. Metallic antimony is obtained from the trisulphide either (1) by heating the sulphide with half its weight of metallic iron, or (2) by roasting it until it is mostly converted into oxide and then treating it with carbon.

(1) $Sb_2S_3 + 3Fe = 3FeS + Sb_2$

(2) $Sb_2O_3 + 3C = 3CO + Sb_2$.

Antimony is a bluish-white metal, and is so brittle that it can easily be reduced to a powder with an ordinary hammer. It does not oxidise at ordinary temperatures in the air. Dilute hydrochloric and sulphuric acids do not attack the metal. Alloyed with lead, antimony is used as type metal. It is also a constituent of Britannia metal and of pewter.

Antimony Trioxide, Sb_2O_3, is formed when antimony is burnt in air. Antimony trioxide is a white powder, which, when boiled with a solution of cream of tartar (acid potassium tartrate) dissolves and forms a solution which, upon concentration yields crystals of *tartar emetic* ($KSbOC_4H_4O_6$ + water). In large doses tartar emetic is poisonous.

Antimony Trichloride, $SbCl_3$, sometimes termed "butter of antimony" can be obtained in crystalline form by distilling a mixture of mercuric chloride and antimony sulphide, or in solution by dissolving metallic antimony in strong HCl. Antimony trichloride is decomposed when largely diluted with water, a white precipitate of antimony oxychloride, SbOCl, being precipitated. Antimony trichloride is used for producing a brown coating on steel, guns, &c., which prevents them from rusting.

Antimony Sulphide, Sb_2S_3, is used for vulcanising indiarubber. It occurs native in the form of black or steel-grey crystals, but may be artificially prepared as an orange coloured powder by passing sulphuretted hydrogen through an acid solution of antimony trichloride.

Symbol Bi. *Bismuth. Atomic Weight* 210.

Bismuth is found in the metallic state chiefly in Saxony. It is extracted from the rock in which it occurs by simply melting it out. As a sulphide, bismuth is found as bismuthite (Bi_2S_3), from which the metal is obtained by roasting the sulphide to oxide in the air and then reducing the oxide to metallic bismuth by heating it with charcoal.

Bismuth is a comparatively rare metal, and forms compounds much resembling those of antimony. The metal is mostly used for making alloys called "fusible metals," which melt at a low temperature. A plug of fusible metal is often let into a boiler to prevent explosion. When the steam (under pressure) reaches the temperature at which the alloy melts, the plug of course fuses and allows the steam to escape. Fusible metal is also used in the wires used for conducting electricity for lighting purposes on board ship. If by any accident the wire becomes heated to a temperature which is unsafe, the metal fuses and breaks the circuit :—

Newton's fusible metal melts at 202 deg. Fahr., and consists of 8 parts bismuth, 5 parts lead, and 3 parts tin.

Rose's fusible metal melts at 201 deg. Fahr., and consists of 2 parts bismuth, 1 part lead, and 1 part tin.

Wood's fusible metal melts at 142 deg. Fahr., and consists of 4 parts bismuth, 2 parts lead, 1 part tin, and 1 part cadmium.

All these metals therefore melt at a temperature lower than the boiling-point of water.

The compounds of bismuth are comparatively unimportant.

OBITUARY.

MR. JOHN M'LACHLAN.—The death has just taken place of Mr. John M'Lachlan, of Edinburgh. He was born at Thornhill about fifty years ago, and came early to Edinburgh, where he was educated under Dr. Ferguson. Choosing architecture for his profession, he became a pupil under the late David Cousin, City Architect. After completing his studies by travel in Italy, Mr. M'Lachlan commenced practice on his own account in Edinburgh, where for nearly twenty-five years he has continued. The results of his labours, says the *Scotsman*, are distributed over a wide area of Scotland, and among them may be noted branch offices of the National Bank of Scotland in most of the leading towns ; and in Edinburgh, those in Princes'-street, High-street, corner of Cockburn-street, and extensive additions to the head office, St. Andrew-square. He also designed the Stock Exchange offices in North St. David-street, and a large block of public offices in St. Andrew-square. Many mansion houses, villa residences, and buildings for commercial purposes were designed by Mr. M'Lachlan, and he made designs for a large number of churches, chapels, cottage hospitals, and other buildings in various parts of the country. He was one of the earliest members of the Edinburgh Architectural Association, of which he was President for two years.

GENERAL BUILDING NEWS.

THE BISHOPSGATE FOUNDATION INSTITUTE.—The foundation-stone of this Institute was laid on Saturday last the 13th inst., by the Rev. W. Rogers, Rector of St. Botolph's, Bishopsgate. The Institute has been established under a scheme of the Charity Commissioners under the City of London Parochial Charities Act, In accordance with the provisions of the scheme, and in consultation with Mr. J. Macvicar Anderson, President of the Royal Institute of British Architects, the Governors, after competition, accepted the designs of Mr. C. Harrison Townsend, F.R.I.B.A., for the proposed Institute. These designs have received the approval of the Charity Commissioners and the London County Council. Tenders were received from thirteen builders for the erection of the Institute according to such designs, and that of Mr. J. T. Chappell being the lowest, was accepted for 24,933*l.* The Institute is to contain—(*a*) A Hall for "public lectures, musical and other entertainments, and exhibitions of works of art or industry" ; (*b*) a Reading Room ; (*c*) a Lending Library ; and (*d*) a Reading Room supplied with periodicals and newspapers, which shall be open to the use of the public. The builder's contract provides for the completion of the buildings by Midsummer, 1894.

GRAMMAR SCHOOL, HORSHAM.—A new Grammar School was opened at Horsham on the 29th ulto., providing accommodation for 100 day scholars and 20 boarders. These new buildings owe their existence largely to the Mercers Company, a distinguished member of which, Richard Collier, founded the school in 1530. The buildings form a large block on the Hurst-road, near Horsham station, and the site occupies 3 acres of land laid out for gardens, play ground, cricket field, &c. The materials are of red brick, Horsham stone, and Staffordshire tiles, built in sixteenth-century Gothic style. The contract for the whole of the work was entered into by Messrs. Potter & Son, Horsham, builders, at 5,795*l.*, and the work has been finished within the allotted period, the total cost being as adjusted 3*l.* 6s. 8d. less than the contract sum. Mr. Arthur Vernon, of London, was the architect.

BUILDINGS AT THE BOW, SHERBORNE.—The contract for the erection of new buildings at the site known as Adam's Corner, Sherborne, has been secured by Mr. Betten, the amount of whose tender was between 2,000*l.* and 3,000*l.* The almshouse master and brethren had secured the services of Mr. R. H. Carpenter, who had prepared the plans before his demise. The only existing premises that will form part of the new erection will be those abutting on the Parade. This house, which is a sixteenth-century place, and which adjoins the ancient gateway to the monastery, will be restored. The architecture of the new buildings will be in keeping with the general architecture of other premises in the town. On the ground floor there will be two shops, and at the back will be a smaller shop. On the second story there is to be a room—36 ft. 3 in. by 23 ft. 6 in.—and this will be let for the holding of public and other meetings. On the same story a reading-room will be provided.

WESLEYAN CHAPEL, LEEDS.—On the 13th inst. a new Wesleyan chapel was opened at Crossgates, Leeds. The chapel, which has been built from the designs of Mr. G. F. Danby, architect, of Leeds, stands on the site adjoining the schoolroom. It has been erected with pressed bricks, with stone dressings, in the Decorated Gothic style, and fronts the Manston-road. A double doorway is placed in the centre, and overhead is a large five-light traceried window, filled in with tinted leaded lights. The roof, which is open-timbered, is 32 ft. high in the centre. The chapel will, when completed, be 60 ft. by 40 ft., but at present only three-fifths of its length has been built. The accommodation now provided is for 240 on the ground floor and 110 in the gallery, which is placed over the entrance porch ; but when completed the chapel will seat 510 adults. The whole of the internal woodwork is carried out in varnished pitch-pine. The cost of the present building will be about 1,400*l.*, and the principal contractors have been Mr. P. Rhodes and Mr. T. Harrod.

NEW CHANCEL, ST. JUDE'S CHURCH, MAPPERLEY, NOTTINGHAM.—The new chancel erected at St. Jude's Church, Mapperley, was consecrated by the Bishop of Derby, Dr. Were, a few days ago. Some eighteen months ago it was decided to enlarge St. Jude's Church by extending the nave and by the addition of a chancel, giving an increase in the accommodation of nearly 100 seats. Plans were drawn up by Messrs. Heazell & Son, of Nottingham, and accepted, and the work was entrusted to Mr. James Wright. The chancel is a brick and stone building, with Broseley tiled roof. The Decorated east window and other details are in harmony with the nave previously built. The chancel is 38 ft. by 24 ft. The east window is of five lights, and is filled with stained glass, the subject being the Ascension. It has been executed by Mr. Samuel Evans, of Birmingham. The flooring is laid with Maw & Co.'s tiles, executed by Mr. Foss, of Nottingham. The roof is divided into panels and decorated. The choir stalls, the reredos, and the pulpit are of carved oak. A new font of carved Hollington stone, with alabaster shafts, to the memory of the late Miss Welby, has been presented by the family, and is the work of Mr. J. G. Thomas. The nave and chancel have been fitted with a system of heating by hot water by Messrs. Thos. Danks & Co. The nave has also been cleaned and decorated. The reredos and pulpit have been executed by Foster & Cooper. The decoration of the roof as well as the panels of the reredos were the work of Mr. G. F. Gascoyne.

BOARD SCHOOL, SHETTLESTON, LANARK.—The corner-stone of the new Board School being erected to replace Eastmuir School, Shettleston, was laid on the 13th inst. The site of the new building is on the main road of Shettleston. The school, a two-storied erection, is built of red stone from Ballochmyle. The class-rooms in all number 16, and are divided by sliding doors, while there are special private rooms for the master, mistress, and other teachers. There are separate entrances for the boy, girl, and infant pupils, leading into a large central hall, where, however, the staircases to each department are kept apart. Accommodation is provided for about 1,000 pupils, and the total cost of the building is estimated at 9,000*l.* On the south side of the school are placed the playgrounds and the janitor's house. Messrs. John Devlin & Son, Glasgow, are the builders, and Mr. Mitchell is the architect.

MODEL COTTAGES, GREENOCK.—The scheme for the erection of fourteen semi-detached double cottages at the corner of South-street and Finnart-road, Greenock, is, says the *Glasgow Herald*, now nearing completion. The site of the cottages is on the north side of South-street and west of Robertson-street. The present Finnart-road is to be closed up, and a new street opened between Campbell-street and Robertson-street. The cottages, which will be built of stone, will be finished in a very complete manner, and the accommodation is five, six, and seven apartments respectively, with scullery and outhouses. The scheme is in the hands of Messrs. Boston, Menzies, & Morton, architects, Greenock.

PROPOSED NEW SCHOOL, PAISLEY.—We understand that the Paisley School Board have instructed Mr. Thomas L. Watson, architect, Glasgow, to prepare plans for a new school, with accommodation for between 600 and 700 children, to be erected in the playground of the South School.

PUBLIC HALL, EAGLESFIELD, DUMFRIESSHIRE.—On the 12th inst. Mr. H. C. Irving, of Burnfoot, opened the new Public Hall at Eaglesfield Village, Dumfriesshire. The building, which is situated in the centre of the village, is built of red freestone from Corsehill Quarries. The hall, which will provide accommodation for 350 persons, is 45 ft. long by 27 ft. wide. At the left entrance is a gentlemen's cloak-room, while to the right is the stair to the gallery, which is above the cloak-room and vestibule. The platform is at the north end of the hall, while behind the platform is an ante-room. The architect was Mr. Peter Chapman, Lockerbie.

SANITARY AND ENGINEERING NEWS.

THE HIGHGATE MUSEUM OF SANITARY APPLIANCES.—A Committee of the London County Council, accompanied by Mr. Shirley, Murphy, M.D., the medical Officer of Health, and Mr. Santo Crimp, M.Inst.C.E., Assistant Engineer, visited the Highgate Museum of Sanitary Appliances on Wednesday last, and were met by Mr. H. R. Williams, Chairman of the Hornsey Local Board, and Mr. T. de Courcy Meade, M.Inst.C.E., the Engineer to the Board, by whom they were conducted over the Museum. The Committee were highly pleased with the numerous objects of interest which the buildings contain, particularly with the sectional model of a sanitary dwelling, and the appliances for ascertaining with some degree of accuracy the flow of air through pipes used for ventilating house drains when fixed under varying conditions. This arrangement of pipes very clearly demonstrates the necessity for avoiding as far as possible all bends in the up-cast or extracting shafts as well as in the drains themselves. The latest improvements and inventions in sanitary work are constantly being added to the already extensive store of information contained in the buildings, and the fact that the Museum has been visited by 8,000 persons since the beginning of this year speaks well for its future sphere of usefulness. It was thought that if such an institution was established by the Council much good would result. The Committee complimented Mr. Williams on the excellence of the collection, and having viewed the Sanitary Depôt and Public Mortuary at Hornsey, returned to London.

HARBOUR WORKS, LEITH.—The tender of Messrs. Kinnear, Moodie, & Co., builders, Leith, for the construction of a reclamation embankment on the foreshore, and a wet dock, graving dock, and relative works on the east side of the Harbour of Leith, has been accepted by the Leith Dock Commission.

PROPOSED BRIDGE, DINGWALL, ROSS-SHIRE.—The scheme for the erection of Alcaig Bridge, Dingwall, was again under consideration at a meeting of the Dingwall Town Council Committee on the 13th inst. Plans of a structure to cost 10,000*l.* were submitted by Mr. Fraser, C.E., Inverness, and approved of; but before proceeding further it was resolved to communicate with salmon fishing proprietors on the river Conon, which forms part of the ferry at the point where it is proposed to erect the bridge.

FOREIGN AND COLONIAL.

FRANCE.—M. Bérard, a former student of the French School at Athens, is to receive this year the medal offered by the Société Centrale des Architectes. ——The first sale of the works of Meissonier realised 837,370 francs; the second, 593,000 francs.—— Admiral Miot has been appointed curator of the Musée de Marine, in place of the late admiral Paris. ——The Academie des Beaux-Arts on Saturday last proceeded to the election of a painter in place of the late M. Cabat. The voters were thirty-three in number. At the sixth "tour de scrutin" M. Benjamin-Constant headed the list with nineteen votes, against seven for M. Aimé Morot and seven for M. Roybet. The new academician is forty-eight years old; he was a pupil of Cabanel and made a long sojourn in the East. Among his best-known works are "l'Entrée de Mahomet II. à Constantinople"; "le Harem Marocain"; "les Derniers Rebelles"; "Herodiate." He has been commissioned to execute, for the Hôtel de Ville, the large central ceiling of the Salle des Fêtes. M. Benjamin-Constant is son-in-law of M. Emmanuel Arago, French Ambassador in Switzerland.—— M. H. Cannisi has been named departmental architect of the arrondissement of Lille (Nord), and M. Batigny has been appointed Municipal architect of the Boulogne-sur-Mer.——The War Department has given orders for the removal of all the structures that have been erected during recent years in the military service zone, 250 mètres wide, which surrounds the Paris fortifications.——An international hygienic exhibition is to be opened at Havre on August 1, in the gardens of the Hôtel de Ville.——The general assembly of the Association Provinciale des Architects will be held this year at Nancy, on June 15, 16, and 17, under the presidency of M. Gournond, architect, of Lyons. The organisation of architectural instruction in the provinces is to be the principal subject of discussion. ——M. Dènarié, architect, of Chambéry, has obtained the first premium in the competition for the construction of a group of scholastic buildings at Moutiers (Savoie). The competition was opened in 1891.—— M. Adolphe Goupil, the founder in 1827, of the art-publishing house first carried on under his name, and since by MM. Boussod & Valadon, has died at the age of eighty-seven. M. Goupil was father-in-law of M. Gerôme, the eminent painter.——The French Société d'Archéologie will hold its congress this year at Abbeville.——The jury of the competition opened at Nice for the erection of a monument to commemorate the union of the county of Nice with France, has selected, from the twenty-three competitors, three who are to compete again: MM. Darmet (sculptor) and Breffendille (architect); MM. Allar (sculptor) and J. Febvre (architect); MM. Lombard (sculptor) and G. Redon (architect).—— We have to announce the death of one of the oldest members of the Société Centrale des Architectes, M. Saint-Agnan Boucher; and that of M. Bresson, a well-known architect of Lyons, who leaves a great many works behind him.

MISCELLANEOUS.

THE WIDENING OF CHEAPSIDE (WEST END).—At their meeting last week the City Commissioners of Sewers, on the motion of Mr. W. H. Williamson, adopted a report of their Finance and Improvement Committee for the widening to 70 ft. of the roadway between St. Paul's Churchyard and St. Martin's-le-Grand, and for asking the London County Council to contribute towards the cost. We referred to this project in a "Note" on January 21 last.

LIVERPOOL ENGINEERING SOCIETY.—The annual meeting of this Society was held on the 10th inst. at the Royal Institution, Colquitt-street. Mr. H. Percy Boulnois, vice-president, in the chair. The annual report was submitted. The roll of the Society, it was stated, comprised 240 members of all classes, of whom 3 are honorary members, 4 life members, 215 ordinary members, 8 associates, and 10 students. Reference was made in the previous year's report to the establishment of a fund for the purpose of awarding premiums for papers read before the society, the title of the premiums so bestowed to be called the "West premium." The Council had now pleasure in announcing that the first premium was awarded by the trustees, on February 8, 1893, and unanimously bestowed upon Mr. Ivan C. Barling, member of the Society, for his paper read on December 9, 1891, entitled "Sounding Apparatus."—The report was adopted, as also was the treasurer's statement. The officers for the ensuing year were then elected as follows:—President, Mr. H. Percy Boulnois (City Engineer); vice-presidents, Professor H. S. Hele-Shaw, and Mr. Arthur J. Maginnis; members of the Council, Messrs. M. C. Bannister, John A. Brodie, S. B. Cottrell, George Farren, Thomas L. Miller, Wm. E. Mills, James Morgan, and Ernest S. Wilcox; hon. secretary, Mr. Mr. R. C. F. Annett; hon. treasurer, Mr. Coard S. Pain; hon. librarian, Mr. Wilfrid S. Boult.—The adjourned discussion on the paper of Mr. E. W. Pierce, assistant solicitor to the Liverpool Corporation, on "Engineering Contracts," was concluded.

PROPOSED "OLD GLASGOW" EXHIBITION.—Considerable progress is being made with the preliminary preparations for the "Old Glasgow" Exhibition, which it is proposed to hold in the summer and autumn of next year. The exhibition will aim at illustrating the history, social life and manners, and the industrial progress of Glasgow from the earliest times up to the middle of this century. A very strong committee, all more or less experts in various branches of Glasgow archæology, has been organised. The great interest taken in the "Bishop's Castle" collection in Glasgow International Exhibition, and the marked success of similar collections in Manchester, Dundee, and elsewhere, go far to show that the "Old Glasgow" gathering is bound to prove of the greatest possible value. Much will depend upon the liberality of the owners of relics of the ancient life of the city, and to these the committee appeal for the loan of their treasures. The subdivisions of the proposed exhibition are expected to possess objects in art, literature, manufactures, shipbuilding, machinery, shipping, charters, incorporations, domestic articles, silver plate, ornaments, dress, the University and schools, and matters referring to distinguished natives and citizens, and historical events. The Exhibition will be held in July, August, and September, 1894, in the Glasgow Institute of the Fine Arts. Mr. Robert Walker, the Secretary of the Institute, is acting secretary for the Exhibition.—*Glasgow Herald.*

MEMORIAL BRASS, ST. NICHOLAS' CATHEDRAL, NEWCASTLE.—A brass tablet has just been set up in St. Nicholas' Cathedral, Newcastle, to the memory of the late Colonel Philip Fitz Roy. The tablet, which is the work of Mr. T. J. Gawthorp, London, is affixed to the north wall of the cathedral, near the entrance. The tablet is 6 ft. 4 in. deep, by 3 ft. 8 in. wide, in one sheet of metal.

THE ENGLISH IRON TRADE.—Matters continue very quiet in the English iron market. Crude iron is in dull inquiry generally, and there is still little life in the demand for finished iron. Tinplate makers on the whole are well occupied. The steel trade gives promise of increasing activity. Shipbuilding exhibits little amelioration, and engineers and iron-founders are not in receipt of many fresh orders. The coal trade remains quiet.—*Iron.*

NATIONAL EXHIBITION, BUDAPEST, 1896.—A note has been received by the Department of Science and Art, through the Foreign Office, from the Austro-Hungarian Ambassador at the Court of St. James's, announcing that a National Exhibition will be held at Budapest in 1896, commemorating the thousandth anniversary of the foundation of Hungary.

THE BOVEY HEATH BRICKWORKS, SOUTH DEVON.—A serious fire took place at these works the other day, doing damage to the extent of upwards of 5,000*l.* One of the stoneware pipe factories was destroyed. Messrs. Candy & Co., Limited, ask us to say that the fire did no damage to either the glazed brick or paving-brick works.

A. A. LYRIC CLUB (Fifth Season).—It is announced that the eighth and last concert will be held at the Freemasons' Tavern on Monday, the 29th inst., at 7.30. The nomination of officers for the ensuing season will take place the same evening.

SURVEYORSHIP APPOINTMENT.—Mr. Arthur H. Thomas, A.R.I.B.A., has been appointed Assistant County Surveyor to the Pembrokeshire County Council.

MEETINGS.

SATURDAY, MAY 20.

Incorporated Association of Municipal and County Engineers.—Midland Counties District Meeting, to be held at the New Waterworks of the Long Eaton Local Board, Stanton-by-Bridge, near Derby.

Sanitary Inspectors' Association.—Annual Provincial Meeting, Maidstone.

Glasgow Architectural Association.—Visit to Hawkhead Asylum.

WEDNESDAY, MAY 24.

Carpenters' Company, Carpenters' Hall (Lectures on Carpentry and Joinery).—Mr. Keith D. Young on "The Setting-out and Construction of Staircases, and Joints in Joinery." 8 p.m.

THURSDAY, MAY 25.

Society for the Encouragement of the Fine Arts.—8 p.m.

Institution of Electrical Engineers.—Continuation of discussion on Mr. W. B. Sayer's paper on "The Prevention and Control of Sparking; Continuous Current Dynamos without Winding on the Field Magnets; and Constant Pressure Dynamos without Series Winding." 8 p.m.

FRIDAY, MAY 26.

Architectural Association.—(1) Election of Officers; (2) Paper by Mr. T. A. Sladdin on "The Travelling Student's Notes." 7.30 p.m.

RECENT PATENTS.

ABSTRACTS OF SPECIFICATIONS.

5,493.—WATER-CLOSETS: *E. Carter.*—This apparatus consists of a closed vessel of any of the usual shapes, and made of metallic or other suitable material, having in its upper side a small outlet attached to the top. Communicating with the reservoir is a funnel, or a similar shaped vessel, open at the top and rising to within a short distance of the surface of the water in the flushing cistern. A chemical substance is contained in the lower vessel, and at each discharge of the flushing cistern a regulated quantity is forced by the weight of the column of water through the outlet in the lower, thus perfectly and automatically disinfecting the closet.

7,248.—BRICKS: *H. & H. J. Warrington.*—This specification refers to improvements in bricks for building purposes, the object being to form bricks in such a shape as to bind more firmly with less mortar or cement, and to prevent the appearance of unsightly joints. The bricks are formed of the usual materials with the parts receiving the mortar, and which are placed together to form the joints recessed or cut away from the rear of the brick to within a short distance of its face. The part thus left intact forms a flange, which, when the brick is laid, presses against the corresponding part of the next brick, the recessed or cut-away portion of the brick forming a bed for the mortar, &c., the flanged portion requiring little or no mortar. The joint thus formed is scarcely perceptible.

7,728.—BRICK STRUCTURES: *W. G. Johnson and J. C. Coulter.*—This invention consists of one or more series of specially formed bricks for building purposes, and especially for tieing walls, chimney shafts, piers, &c., to reduce the risk of cracking, bulging, or displacement. The bricks are provided with one or more dovetail or similar shaped notches, or slots, so placed that when any two bricks of suitable pattern are laid in the required position, a key-piece or tie, larger at the ends than its middle, can be inserted between them, so as to engage in the slots or notches of the bricks in such a manner as to effectually key the latter together. The key-pieces may be of any suitable material, and may be set in position by any of the ordinary methods.

NEW APPLICATIONS FOR LETTERS PATENT.

MAY 1.—8,685, J. Harding, Doors and Movable Partitions.—8,721, O. Elphick, Water-closets.—8,730, E. Whitehead, Spring Door-fastener.—8,739, W. Finlayson, Earth Excavators.

MAY 2.—8,751, T. Brown, Window-sashes.—8,806, J. Cannadine, Tombstones, Memorial Stones, &c.—8,821, L. Fornander, Band-saws.—8,828, J. Leigh, Fireproof Floors and Roofs.

MAY 3.—8,837, J. Easby, Flushing Water-closets.—8,841, N. Sandiford, Fire-grates.—8,842, J. Hacking, Chimney-cowls and Ventilators.—8,844, J. Douglas, Heating and Ventilating Buildings, &c.—8,853, W. Needham, Wood Screws.—8,859, J. Dollheiser, Screw-down Taps.—8,863, F. Pover, Ovens and Kilns for the Firing of Bricks, Tiles, &c.—8,869, J. McQuone and R. Turnbull, Composition or Concrete Pavement.—8,890, Beck & Co., Lim., and Others, Draw-off Taps.—8,897, G. Prüssing, Process for Improving Cement.

MAY 4.—8,940, R. Adams, Door-Closing Appliances and Checks.—8,944, F. Thomas, Drain-Pipes, &c.—8,946, W. Kirkland, Adjustable Door-and Hinge.

MAY 5.—8,977, F. Clarkson and others, Screws for Wood, &c.—8,982, J. Bousfield, Wrought-iron Built Guide

Rail for Sliding Doors.—8,983, J. Bousfield, Detachable Roller Frame for Sliding Doors.—8,989, J. Easthope and G. Nedderman, Weather Excluder for Doors and Windows.—8,990, J. Quarmby, Sinks, Baths, Lavatory Basins, &c.—9,020, W. Moore, Water-closets.—9,021, G. Birkitt, Flushing Cisterns.—9,030, F. Woiwod, Bolts or Latches for Doors.—9,040, S. Dutton, Water-closets.

MAY 6.—9,048, J. Hancock, sen., Cisterns for Water-closets.—9,069, W. Hooker and C. Fitch, Sliding Sashes to be opened from the inside.—9,101, R. Anderson, Self, Acting Waste Water Flushing Chamber.—9,115, T. Lafon, Safety Bolt for Doors.

PROVISIONAL SPECIFICATIONS ACCEPTED.

1,418, E. Nowell and P. Chitham, Eclipse Combination Saw Sets.—2,657, H. Barlow, Roofing Tiles and in machines employed in such manufacture.—4,456, H. Coulthurst and others, Sanitary Pipes.—4,625, E. Nayler, Ventilating Arm or Pipe for Water-closet Traps, &c.—4,810, J. Jones, Presses for Bricks, Tiles, &c.—5,012, C. Crickmay, Combined Garden Edging, and Water Channel.—5,086, D. Martyn, Automatic Brick-cutting Table and Counter.—5,259, N. Parascho and E. Thorpe, Glazing Staple.—5,427, G. Law, junior, Ventilating House Drains.—5,682, E. Stephens, Self-acting Flush-valve for Urinals, &c.—6,757, G. Calvert, Latch Bolts, applicable to Rim, Mortice, and other Locks.—6,846, J. Neil, Door-snick or Lock.—7,241, J. Horton and others, Chisels for Morticing, &c.—7,456, J. Whittaker, Brick Presses.—7,462, P. Spencer, Centres for Setting-out Work.—8,001, J. Urinson, Devices for use in Painting or Cleaning Walls of Houses.

COMPLETE SPECIFICATIONS ACCEPTED.

(Open to Opposition for Two Months.)

12,416, R. Fox, Waste Preventers or Flushing Cisterns.—19,355, W. Petley, Sash-fastener.—20,242, T. Bennett, Gauge for use when cutting Tongued and Grooved Boards, Wooden Mouldings, &c. — 4,825, E. Nelson, Damp Course Materials used in the Foundations of Buildings.—5,939, R. Doyle, Non-inflammable Paint.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

MAY 4.—By *Debenham, Tewson, & Co.* (at Midhurst): Three houses in the Market Place, Midhurst, u.t. 1,000 yrs., g.r. 5s., r. 79*l.* 19s., 1,100*l.*—By *Fuller, Moon, & Fuller* (at Croydon): "The Cottage," Warrington-rd., Duppas Hill, f. 1,200*l.* ; 74, Sydenham-rd. North, Croydon, f., r. 50*l.*, 875*l.* ; 12 and 14, Frith-rd., and 48 and 50, Tamworth-pl., u.t. 71 yrs., g r. 9*l.*, 600*l.* ; 52, Tamworth-pl., f. 235*l.* ; 6, 8, and 10, Frith-rd., f. 600*l.*

MAY 8.—By *W. Sutherland:* 59, Paddington-st., Paddington, u.t. 18 yrs., g.r. 56*l.*, 430*l.* ; 51, Park-st., Camden Town, u.t. 13 yrs., g.r. 50*l.*, r. 100*l.*, 400*l.*—By *Brodie, Timbs, & Baker:* 10, Woodchurch-rd., Hampstead, f., r. 125*l.*, 1,920*l.* ; "Holly Bush House," Hadley Green, and 2¼ acres, f., 3,250*l.*—By *Gough & Dove:* 19, 21, St. Mary Church-st., Rotherhithe, f., r. 42*l.*, 460*l.* ; 9 and 12, Roney-st., f., 210*l.* ; 17, Fulford-st., f., 170*l.* : "The Queen's Head" Public House, Fulford-st., f., r. 55*l.*, 900*l.* ; 44, 46, Rotherhithe Wall, f., 350*l.* ; f.g.r. of 6*l.*, Roney-st., reversion in 1 yr., 155*l.* ; 28, Crossfield-lane, Deptford, f., 185*l.*—By *Trafford & Dawson:* 9 and 11, Seymour-st., Deptford, u.t. 59 yrs., g.r. 4*l.* 10s., 440*l.* ; 120 and 122, Grove-st., u.t. 40 yrs., g.r. 4*l.*, 300*l.*—By *Weatherall & Green:* 6, 7, 8, Portland-rd., Kingston, f., 570*l.* ; 1 to 9, Fairfield East, u.t. 41 yrs., g.r. 18*l.*, 900*l.* ; 27, 29, 31, Hawkes-rd., Norbiton, f., 510*l.* ; 1, 2, 3, Victoria-rd., f., 400*l.* ; "Vernon" and "Ashburton" Villas, Victor-rd., Teddington, f., r. 46*l.*, 510*l.*—By *H. Hooper:* 32, Chaplin-rd., Wilesden Green, u.t. 85 yrs., g.r. 6*l.*, r. 26*l.*, 170*l.* ; 6, Lansdowne-ter., Wood Green, u.t. 70 yrs., g.r. 3*l.* 5s., 150*l.*

MAY 9.—By *Weston & Sons:* Nos. 147, 149, 151, Clapham-pk.-rd., u.t. 69 yrs., g.r. 24*l.*, r. 160*l.*, 1,500*l.* ; 153, 155, 157, Clapham-pk.-rd. ; and plot of land, u.t. 69 yrs., g.r. 30*l.*, r. 159*l.*, 1,680*l.* ; 42, 46, 48, 50, Portland-pl., North, u.t. 27 yrs., g.r. 17*l.*, r. 137*l.* ; and a l.g.r. of 7*l.* 7s., 910*l.* ; 19, Wynne-rd., Brixton, u.t. 69 yrs., g.r. 5*l.* 10s., 265*l.*—By *King & Son:* 8, Boston-pk.-rd., Brentford, f., 700*l.*—By *W. J. Newell:* 29, Broadway, Deptford, f., 550*l.* ; 19, 21, 23, Cambridge-rd., Croydon, f., 400*l.* ; 3, Beverley Cottages, Lee, u.t. 70 yrs., g.r. 4*l.*, r., 20*l.*, 175*l.*—By *E. & H. Lumley:* "Ellenslea" and 3 acres near Farnborough, f., 1,300*l.*

MAY 10.—By *Dolman & Pearce:* No. 157, Haverstock Hill, u.t. 27 yrs., subject to two lives, 1,100*l.* ; 6, St. James' Gardens, u.t. 56 yrs., g.r. 5*l.*, r. 32*l.*, 255*l.*—By *Langridge & Freeman:* F.g.r. of 24*l.*, Grace-rd., Croydon, reversion in 85 yrs., 450*l.*—By *Farebrother, Ellis, & Co.:* "Argyle Lodge," Wimbledon, and 2½ acres, f., 10,000*l.* ; f.g.r. of 50*l.*, Chalk Farm-rd., Camden Town, reversion in 54 yrs., 1,100*l.* ; f.g.r. of 20*l.*, ditto, reversion in 36 yrs., 440*l.* ; By *W. Hall:* 13, Gerrard-st., Soho, f., r. 100*l.*, 1,800*l.*—By *J. H. Bulmer:* 13, 14, Victoria-ter., Deptford, u.t. 73 yrs., g.r. 8*l.*, 450*l.*—By *T. B. Westacott:* 24, 26, 28, 30, Balfour-rd., Highbury, u.t. 56 yrs., g.r. 25*l.* 4s., r. 166*l.*, 1,460*l.* ; 60, Leconfield-rd., u.t. 56 yrs., g.r. 5*l.* 10s., r. 26*l.*, 280*l.* ; 4, 6, 20, Courtney-rd., Holloway, u.t. 70 yrs., g.r. 24*l.*, r. 122*l.*, 1,070*l.* ; 28, 30, Ringcroft-st., u.t. 51 yrs., g.r. 12*l.*, r. 72*l.*, 615*l.* ; 1, 2, 3, Palmer-pl., u.t. 51 yrs., g.r. 18*l.*, r. 108*l.*, 900*l.* ; 15, 17, Cornwall-rd., Stroud Green, u.t. 83 yrs., g.r. 15*l.*, r. 86*l.*, 815*l.* ; 6, 7, Manchester-ter., Kensal Green, u.t. 38 yrs., g.r., 15*l.*, r, 62*l*, 88*l.*, 225*l.*

MAY 11.—By *Mansell & Rowe:* two plots of leasehold land, Church-rd., Norwood, 200*l.*—By *Hobson, Richards, & Co.:* f.g r. of 44*l.* Grove-ter., Leytonstone, reversion in 88 yrs., 850*l.* ; f.g.r. of 37*l.* 10s., Stanley-ter., Leyton, ditto in 87½ yrs., 755*l.* ; f.g.r. of 27*l.*, Chester-ter., ditto in 88 yrs., 520*l.* ; f.g.r. of 27*l.*, Merchison-ter., ditto in 88 yrs., 590*l.* ; f.g.r. of 22*l.* 8s., Lina-ter., Woodford, ditto in 90 yrs., 435*l.* ; f.g.r. of 25*l.*, Ravenscroft-rd., Beckenham, ditto in 86½ yrs., 580*l.* ; f.g.r. of 30*l.*, Station-ter., Wimbledon, ditto in 88 yrs., 605*l.* ; f.g.r. of 7*l.* 10s., Maryland-rd. West, Stratford, ditto in 61 yrs., 210*l.* ; f.g.r. of 31*l.* 10s., reversion in 272 yrs., 735*l.* ; f.g.r. of 17*l.* 10s., Merryweather-ter., West Ham, ditto in 53 yrs., 400*l.*—By *Newbon & Co.:* 109, 111, and 113, Curtain-rd., Shoreditch, f., r. 108*l.*, 2,760*l.* ; 38, Oxford-rd., Islington, u.t. 59 yrs., g.r. 6*l.* 6s. 10d., r. 42*l.*, 400*l.* ; 1, Alwyne-pl., Canonbury, u.t. 52 yrs., g.r. 9*l.* 15s., r. 60*l.*, 410*l.* ; f.g.r. of 3*l.* 3s., Fletton Villas, Bowes Park, reversion in 94 yrs., 70*l.* ; 4, 6, and 7, Fletton Villas, f., r. 58*l.* 10s., 800*l.* ; 6, Berkeley Villas, f. 660*l.* ; four plots of f. land, Bounds Green-rd., 225*l.* ; 1, 2, 3, Florence Villas, Edmonton, f. 300*l.*—By *Glazier & Sons:* F.g.r. of 330*l.*, Devonshire-st., City, reversion in 64 yrs., in six lots, 8,565*l.* ; Peppercorn g.r. on plot of land, Melbourne-grove, Dulwich, reversion in 82 yrs., 50*l.* ; two peppercorn g.r.'s Lytcott-grove, reversion in 82 yrs., 350*l.*—By *C. G. & T. Moore:* 135, Hoxton-st., Hoxton, f., r. 55*l.*, 1,150*l.* ; 28, St. John's-rd., f., r. 55*l.*, 730*l.* ; 4, 6, 8, 18, 20, Myrtle-st., f., r. 159*l.*, 1,670*l.* ; f.g.r. of 150*l.*, Myrtle-st., reversion in 61 yrs., 3,930*l.* ; 1 and 3, Myrtle-st., f., r. 70*l.*, 805*l.* ; f.g.r. of 70*l.*, Myrtle-st., reversion in 20 yrs., 1,600*l.* ; 37, 39, 41, Myrtle-st., f., r. 100*l.*, 1,050*l.* ; 11, Grove Passage, Hackney, c., 350*l.* ; 91, Howard-rd., Plaistow, f., 140*l.*

MAY 12.—By *Norton, Trist, & Gilbert:* 298, Stanstead-rd., Forest Hill, u.t. 90 yrs., g.r. 9*l.*, r. 55*l.*, 490*l.*—By *W. A. Blakemore:* 5 to 14, Hide-pl., Westminster, and 16, Frederick-st., u.t. 13 yrs., g.r. 2*l.* 13s., 965*l.* ; Nos. 46 to 66 (even), Vauxhall Bridge-rd., and 60A, and 1 to 7, Carey-pl., u.t. 8 yrs., g.r. 4*l.* 11s. 8d., 600*l.* ; 33, King William-st., Greenwich, u.t. 31 yrs., g.r. 6*l.*, r. 30*l.*, 175*l.* ; 34, King William-st., u.t. 31 yrs., g.r. 6*l.*, r. 30*l.*, 175*l.* ; 82, 88, 90, Marsden-st., Haverstock Hill, u.t. 56 yrs., g.r. 15*l.*, r. 95*l.*, 640*l.*—By *Newbon & Co.:* 82, Prebend-st., Islington, u.t. 34 yrs., g.r. 4*l.* 4s., r. 32*l.*, 260*l.* ; 16, St. Mary's-rd., Canonbury, u.t. 52 yrs., g.r. 2*l.*, 800*l.* ; 19, Ashley-rd., Hornsey Rise, u.t. 82 yrs., g.r. 9*l.*, 475*l.* ; 136, Gt. College-st., Camden Town, u.t. 48 yrs., g.r. 6*l.*, r. 50*l.*, 550*l.* ; 7, Dickenson-st., Kentish Town, u.t. 74 yrs., g.r. 7*l.* 4s., 200*l.* ; 1 and 2, West Green Villas, West Green, u.t. 30 yrs., g.r. 11*l.* 10s., r. 81*l.*, 360*l.* ; "Siesta," Landsdowne-grove, Neasden, u.t. 93 yrs., g.r. 6*l.*, r. 38*l.*, 400*l.* ; 102, King Edward-rd., Hackney, u.t. 46 yrs., g.r. 7*l.*, r. 42*l.*, 375*l.*—By *Furber, Price, & Furber:* F.g.r. of 5*l.*, Waverley-rd., Harrow-rd., reversion in 56 yrs., 140*l.* ; f.g.r. of 14*l.* 10s., Johnson News, ditto in 54 yrs., 315*l.* ; f.g.r. of 13*l.* 10s., ditto in 56 yrs., 275*l.* ; 29, 31, Charrington-st., Somers Town, u.t. 30 yrs., g.r. 10*l.* 10s., 295*l.*—By *Baker & Sons;* "The Durham Gold Mine," Ethridge, Queensland, and 10 acres, with plant, &c., 3,005*l.* : No. 421, Bethnal Green-rd., f., r. 45*l.*, 625*l.*—By *A. Prevost & Son:* 175, Salmon's-lane, Limehouse, f., r. 36*l.*, 545*l.* ; 2 to 10 (even), Diggon-st., Stepney Green, u.t. 53 yrs., g.r. 17*l.* 10s., 1,270*l.* ; 137, 139, Skidmore-st., Mile End, u.t. 16 yrs., g.r. 4*l.* 10s., 235*l.*—By *Segrave, Browett, & Taylor:* C.g.r. of 30*l.*, High-st., Plaistow, reversion in 43 yrs., 500*l.* ; 5, 6, May's-villas, Sidcup, f., r. 42*l.*, 540*l.* ; 79, 81, Clinton-rd, Bow, u.t. 50 yrs., g.r. 8*l.*, r. 56*l.*, 580*l.* ; 21, Ashcroft-rd., u.t. 50 yrs., nil, r. 26*l.*, 230*l.* ; 8, 9, Lawton-rd, u.t. 50 yrs., g.r. 8*l.*, 405*l.*

[*Contractions used in these Lists.*—F.g.r. for freehold ground-rent ; l.g.r. for leasehold ground-rent ; i.g.r. for improved ground-rent ; g.r. for ground rent ; r. for rent ; f. for freehold ; c. for copyhold ; l. for leasehold ; e.r. for estimated rental ; u.t. for unexpired term ; p.a. for per annum ; yrs. for years ; st. for street ; rd. for road ; sq. for square ; pl. for place ; ter. for terrace ; cres. for crescent ; yd. for yard, &c.]

PRICES CURRENT OF MATERIALS.

TIMBER.

Greenheart, B.G.	ton	9/0/0 0/0/0
Teak, E.I. ..	load	9/0/0 15/0/0
Sequoia, U.S.ft.cu.		2/3 2/6
Ash, Canada	load	2/15/0 4/5/0
Birch, do.		2/15/0 3/15/0
Elm, do.		3/15/0 4/15/0
Fir, Dantsic, &c.		1/10/0 3/5/0
Oak, do.		3/5/0 5/10/0
Canada		5/10/0 7/0/0
Pine, Canada red		2/15/0 3/15/0
Do. Yellow		2/10/0 4/10/0
Lath, D'ntsic, fath		4/10/0 5/10/0
St. Petersburg..		5/0/0 6/10/0
Deals, Finland		
2nd & 1st std	100	7/0/0 9/10/0
Do. 4th & 3rd ..		6/10/0 7/0/0
Do. Riga		6/10/0 8/0/0
St. Petersburg,		
1st yellow		10/0/0 14/0/0
Do. 2nd yellow..		8/0/0 9/0/0
Do. white		8/0/0 10/0/0
Swedish		7/10/0 16/0/0
White Sea		8/0/0 16/0/0
Canada, Pine 1st		21/0/0 28/10/0
Do. do. 2nd		16/0/0 17/10/0
Do. do. 3rd &c.		7/10/0 10/5/0
Do. Spruce, 1st		8/10/0 11/0/0
Do. do. 3rd & 2nd		6/10/0 8/0/0
New Brunswick		6/10/0 7/10/0
Battens, all kinds		3/0/0 15/0/0
Flooring boards, sq., 1 in. prep. 1st		0/9/6 0/16/6
Do. 2nd		0/8/0 0/12/0
Other qualities—		0/4/6 0/7/6
Cedar, Cuba ..ft.		/4 /4½
Honduras, ..&c		/4 /4½
Mahogany, Cuba		/4 /6½
St. Domingo, cargo av.		/4 1/6
Mexican do. do.		/3½ /4½
Tobasco do. do.		/3½ /6½
Honduras do. ..		/4½ /6
Box, Turkey	ton	4/0/0 13/0/0
Rose, Rio		9/0/0 20/0/0
Bahia		8/0/0 18/0/0
Satin, St. Domingo	ft.	0/0/6 0/1/3
Porto Rico		0/0/7 0/1/6

TIMBER (*continued*).

Walnut, Italian ..		0/0/3½ 0/0/7

METALS.

Iron—Pig, in Scotland	ton	2/0/2½ 0/0/0
Bar, Welsh, in London		5/17/6 6/0/0
Do. do. at works in Wales		5/7/6 5/10/0
Do. Staffordshire, in London		6/0/0 6/10/0
COPPER—British, cake and ingot		46/15/0 47/5/0
Best selected ..		48/0/0 48/10/0
Sheets, strong ..		56/0/0 57/0/0
Chili, bars		43/0/0 43/7/6
YELLOW METAL	lb	0/0/4¾ 0/0/5
LEAD—Pig, Spanish	ton	9/10/0 9/12/6
English com. brands		9/12/6 9/15/0
Sheet, English, 6 lbs. per sq. ft. and upwards		11/0/0 0/0/0
Pipe		11/10/0 0/0/0
ZINC—English sheet	ton	22/0/0 0/0/0
Vieille Montagne		22/10/0 0/0/0
TIN—Straits		89/15/0 90/5/0
Australian		90/7/6 90/17/6
English Ingots..		94/0/0 94/10/0
Banca		92/0/0 92/10/0
Billiton		91/15/0 92/0/0

OILS.

Linseed	ton	20/7/6 20/10/0
Cocoanut, Cochin		28/10/0 0/0/0
Do. Ceylon		27/0/0 27/5/0
Palm, Lagos		27/0/0 0/0/0
Rapeseed, English pale		25/10/0 26/0/0
Do. brown		24/10/0 0/0/0
Cottonseed ref.		23/0/0 23/10/0
Oleine		22/0/0 24/0/0
Lubricating, U.S.		4/0/0 5/0/0
Do. refined		5/10/0 12/0/0
TAR—Stockholm	barrel	0/18/6 0/0/0
Archangel		0/12/6 0/0/0

TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 10 *a.m. on Thursdays.*]

ARDINGLEY (Sussex).—For laying pipe sewers (1,700 yards), constructing manholes, &c., for the Cuckfield Union Rural Sanitary Authority :—

Adams	£1,053	Box	£882
Holman	974	Langridge, Croydon*	864
Steer	955	* Accepted.	

[Surveyor's estimate, £875.]

ASPATRIA (Cumberland).—Accepted for the erection of reading and recreation rooms for a company. Messrs. Moffat & Bentley, architects, Whitehaven :—

Mason Work.—Maxwell & Topping, Aspatria	£405 0 0
Joiner and Carpenter—Joseph Rawlings, Aspatria	220 0 0
Plumbing and Glazing.—David Bell, Cockermouth	110 0 0
Plastering and Cementing.—Altringham, Cockermouth	57 10 0
Slating.—John Walker, Cockermouth	68 0 0
Painting.—J. S. Armstrong, Workington	12 13 0

BASFORD (Notts).—For the erection of casual wards at the Workhouse, Basford, for the Union Guardians. Mr. Herbert Walker, architect, Nottingham. Quantities supplied by the architect :—

G. Hopewell & Son	£1,339 10 0
J. H. Vickers, Nottingham (accepted)	1,220 0 0

BAUMBER (Lancs.).—Accepted for re-seating and renovating Wesleyan chapel. Mr. Sidney Switzer, architect :—

Frank Bell, Horncastle	£110 0 0

BIRMINGHAM.—For the erection of a house, with coach-house, stable, &c., at Moseley, for Mr. Edward Jones. Mr. Francis B. Andrews, architect :—

Moffat	£1,298	Bishop & Charles	£1,167
Ambler	1,244	Grant	1,132
Whitehouse	1,187	Trentham (accepted)	1,096

BRISTOL.—For the proposed additions to the "Foresters Arms," Ashley down, Bristol. Mr. F. Bligh Bond, architect, Bristol :—

George Humphries	£690	Cowlin & Sons	£610
Eastabrook & Sons	678	R. Wilkins & Sons	585
J. E. Davis	645	W. Church*	515
		* Accepted.	

CARDIFF.—Accepted for the extension of the Glamorganshire and Monmouthshire Infirmary. Messrs. Seward & Thomas, architects, Queen's-chambers, Cardiff :—

Wm. Symonds, Rectory-road, Canton, Cardiff,	£11,774 0 0

CARDIFF.—Accepted for excavating, draining, &c. at Ely Bridge, for the Glamorgan County Council. Mr. T. Lloyd Edwards County Surveyor, Bridgend. Quantities supplied :—

Thomas Rees, Crinallt, Ely, near Cardiff	£111

CARDIFF. — For additions to Stacey-road Board Schools Cardiff, for the Cardiff School Board. Messrs. Bruton & Williams, architects, Cardiff :—

Hatherley & Carr ..	£2,597 0 0	D. C. Jones & Co...	£2,389 0
Edward H. Page ..	2,560 18 5	Lattey & Co.	2,385 0
Knox & Wells	2,540 0 0	Henry Davies, Cardiff (accepted)....	2,237 9 7
D. J. Davies.....	2,480 0 0		

CARDIFF.—For the erection of engine-house, boiler-house, and coal stores for the electric lighting station, Canton, Cardiff, for the Corporation. Mr. W. Harpur, Engineer, Town Hall, Cardiff. Quantities supplied by the Engineer :—

Ashley	£4,272 4 4	Ellis & Davis	£3,254 17 7
Thomas & Co., Cardiff*	3,328 3 2	Ridley & Son	3,234 10 6
		* Accepted.	

CARDIFF.—For the construction of brick and pipe sewers, for the Barry and Cadoxton Local Board. Mr. C. R. Walker, Engineer, Local Board Offices, Vere-street, Cadoxton, Cardiff :—

	Alternative Estimates.	
Richards & Cranston	£24,907 0 0	£32,085 5 4
Lloyd & Powell	20,773 13 5	21,527 14 3
Morgan & Roberts	15,056 8 8	19,049 16 4
John Mackay	15,044 11 0	16,411 12 8
J. Strachan	13,236 0 0	14,000 0 0
T. W. Davies	13,060 10 2	13,988 16 2
F. Ashly	13,006 18 0½	13,255 15 9
Baker & Gregory	12,771 19 7	14,578 13 11
G. Rutter, Barry*	12,515 15 7	12,896 12 7
E. J. Ince	9,427 4 10	10,424 3 10

[Engineer's estimate, £11,944 18s. 3d. : £12,744 18s. 3d.]
* Accepted subject to a small reduction.

CASTLEFORD.—For sewering, kerbing, channelling, and other street works, for the Trustees of "Jessop's" Estate. Mr. Sam. Shaw, C.E., 2, Union-street, Dewsbury. Quantities by engineer :—

I. & J. Aliffe, Ossett	£288 3 3

COCKERMOUTH.—For the erection of a bridge, Brandlingill for the Highway Authority. Mr. J. B. Wilson, C.E., Court House-buildings, Cockermouth. Quantities by the engineer :—

J. Allison & Son	£119 10 0	Geo. Pardshaw*	£59 16 8
Jno. Bolton	64 10 0	* Accepted.	

CROYDON.—For alterations at the "Fox and Hounds" Tavern, London-road, West Croydon. Mr. R. A. Lewcock, architect, 88, Bishopsgate-street Within, E.C. :—

Hanscomb & Smith	£1,075	Edwards & Medway	£1,020
Walker	1,059	Simpson & Cove	1,012
Voller	1,045	Spencer & Co.	997
Todd	1,029	Courtney & Fairbairn*	929
		* Accepted.	

Pewterer, &c.

T. Heath (accepted)	£129 0 0

Gas-fittings.

J. & C. Christie (accepted)	£100 0 0

CROYDON.—For alterations and additions to No. 62, Dingwall-road, Croydon, for Mr. F. Weare. Mr. Alfred Broad, architect, 27, Dingwall-road, Croydon :—

Batley & Linfoot	£610	Bullock	£556
Dewdney	580	Hanscomb & Smith, Croydon (accepted)	545
Judd	580		
Saunders	558		

CWMCARN (Mon.).—For erecting an Isolation Hospital for the Abercarne Local Board of Health, Mr. John W. B. Rooke, Engineer and Surveyor, Abercarne :—

Bellow & Son	£534 10 0	North & Son	£427 0 0
Francis & Co.	521 10 0	W. A. Baker & Co...	400 0 0
Humphreys & Co. ..	486 0 0	T. G. Diamond	398 10 0
D. Rowell & Co.	478 6 8	R. Rowsell	396 0 0
C. Bunning	460 10 0	W. Harbrow, London*	377 16 0
I. Dixon & Co	459 0 0		
		* Accepted provisionally.	

DUNBAR, N.B.—Accepted for alterations and additions (anterooms, &c.), at the Corn Exchange, for the magistrates and Town Council of the Burgh of Dunbar. Mr. Andrew Moody, Burgh Surveyor, Dunbar. Quantities supplied :—

Mason.—G. Blair, Dunbar	£65 18 0
Joiner.—G. Scott, Spott	63 0 0
Plumbers.—A. Melville & Sons, Dunbar	29 16 10
Plasterer.—A. Aitken, Dunbar	12 6 0
Slater.—R. Alder, Dunbar	7 13 6
Total	£178 14 4

ENFIELD HIGHWAY (Middlesex).—For repairs, painting, &c., to "The White House," Enfield Highway, for Messrs. Watney & Co. Mr. J. J. Ensor, surveyor :—

Smithers	£101 0 0	W. Lawrence, Waltham Abbey*	£54 10 0
C. White	73 0 0		
A Maxfield	64 19 6	* Accepted.	

ENFIELD HIGHWAY (Middlesex).—For repairs, painting, &c., at "The Roebuck," Roebuck-terrace and Roebuck-cottages, Enfield Highway, for Messrs. Watney & Co. Mr. J. J. Ensor, surveyor :—

Smithers	£227 2 0	W. Lawrence, Waltham Abbey*	£149 10 0
A. Maxfield	189 8 6		
C. White	158 0 0	* Accepted.	

FARNBOROUGH (Hants).—For extension of the Convent of Notre Dame du Sacre Cœur. Mr. Joseph Stanislaus Hansom, architect, 27, Alfred-place West, South Kensington. Quantities by Mr. Henry Smith, 8, John-street, Adelphi :—

		Extra for Adamant plaster.
T. J. Messom	£9,345	£149
Oldridge & Sons	8,927	205
W. Garland	8,890	—
G. Kemp	8,783	200
Martin, Wells, & Co.	8,717	50
W. R. & C. Light	8,447	112
Claridge & Bloxham, Banbury*	8,397	274
	* Accepted.	

COMPETITIONS, CONTRACTS, AND PUBLIC APPOINTMENTS.

COMPETITIONS.

Nature of Work.	By whom Advertised.	Premiums.	Designs to be delivered.
*New Municipal Buildings	Darlington Corp.	.....	No date
*Premises, Cannon-street, Dover	Dover Corporation	30 and 20 guineas	June 17
*Scheme for Sewerage Disposal	Monmouth U.S.A.	31*l.* 10s. and 21*l.*	July 1

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.
Flagging, Paving, &c. Julian-street	Plymouth Corporation	G. D. Bellamy	May 23
School Buildings, King's Heath, Birmingham	King's Norton Sch. Bd.	Ed. Holmes	do.
School Buildings, Sudbury, Harrow	Harrow-on-the-Hill, &c. School Board	Houston & Houston	do.
Work on Trust Property, St. Dunstan, Canterbury	Trustees of Streinsham's Charity	G. Smith	do.
Road Metal (10,000 tons)	Bradford Corporation	J. H. Cox	do.
Three Houses, Spennymoor, Durham		J. Woodcock	do.
Road Diversion	Llandudno Impt. Com.	*Official*	do.
Labourers' Cottages	Kanturk (Ireland) Union	do.	May 24
Limestone (2,000 tons)	Nantyglo and Blaina (Mon.) Local Board	do.	do.
*Guernsey Granite Spalls	Wandsworth and Clapham Union	do.	do.
*Kentish Flints	Southend-on-Sea Corp.	C. T. Copley	do.
*Two Pumping Engines, &c.	Leicester Corporation	J. B. Everard	do.
Six Houses, Holroyd-hill, Wibsey		J. Cowgill	do.
Improvement Works, Heath View-street	Halifax Corporation	Eks. Escott	do.
Alterations to Houses, Hill Head, Aberdeen		Jenkins & Marr	do.
Retaining Walls, North Shields	Tynemouth U.S.A.	J. F. Smellie	do.
School Extensions	Aberdare School Board	T. Roderick	do.
Hospital Buildings, Rainhill	Lancashire Aylums Bd.	Grayson & Ould	May 25
Cast-iron Pipes	Tynemouth Gas Co.	W. Hardie, Jun.	do.
Sewerage Works, Pipes, &c. Lanark	Lanark County Council	Jas. Tait	do.
Embankment for Reservoir, &c. near Exmouth	District Water Co.	Ed. Cousins	do.
Additions, &c. "Bromley Arms," Piskerton, Notts		Shephard & Harrison	do.
Pair Villa Residences, Walls, &c. Burnham, Somerset	Mrs. Green and J. W. Tucker	Chas. S. Leech	do.
Flagging and Kerbing, Barnsley	Howden Highway Bd.	J. Anderson	do.
Road Materials	Blackheath High. Bd.	G. Lintott	do.
Vicarage House, Aberdare	Rev. W. Rhydderch		do.
Channelling, Forming, &c. Moy-road	Cardiff Corporation	*Official*	do.
*Oak Fencing	Dartford U.R.S.A.	do.	do.
Additions to Workhouse	Celbridge (Ireland) Union	do.	May 26
Four Cottages, Bank-lane, Maryport		C. Eaglesfield	do.
Detached House, Ripon-road, Harrogate		H. E. & A. Bown	May 27
Congregational Church, Amble	Rev. J. Bowron	G. M. Smith	do.
School Buildings, Wycliff Hall, Sheffield		C. J. Innocent	do.
School, Institute, &c. Sheffield		do.	do.
Avenue in the Market	Bath Corporation	*Official*	do.
Welsh Macadam, Kerbs, &c.	Sale Local Board	do.	do.
*1,500 ft. Lancashire Kerb	Kingston-on-Thames Corporation	do.	do.
Cottage at Waterworks, Spa Clough, Rishworth	Wakefield Corporation	do.	May 29
Brewery Buildings and Stabling, Tylorstown, near Pontypridd	Treharne & Treharne		do.
School Buildings, Barlow-lane, Levenshulme	Committee	J. H. Maybury	do.
School Buildings, Pendleton, Lancs.	Salford School Board	Henry Lord	do.
Pipe Laying, Manholes, Brightlingsea, Essex	Tendring U.R.S.A.	R. T. Stewart	do.
Extension of Gasworks	Sutton-in-Ashfield Loc. Bd.	C. E. Jones	do.
Wesleyan School, Pellon		Jas. Farrar	do.
*Building Additional Rooms	St. Mary Abbott's Kensington	W. Weaver	do.
Penlee Stone or Granite Road Metal (2,000 tons)	Tonbridge Loc. Bd.	*Official*	May 30
Sewer, York-road, Belfast	Belfast Corporation	do.	do.
Railway Stores, London	South Indian Ry. Co.	do.	do
*Hire of Horses	St. Saviour's B. of W.	do.	do.
*Reparation and Cleansing Sewers	Com. of Sewers (City of London)	do.	do.

CONTRACTS—*Continued.*

Nature of Work or Materials.	By whom Required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.
*Supply of Timber	Eton Union	*Official*	May 30
School Buildings, Netherton, Maryport	Ellenborough and Ewanrigg Sch. Bd.	C. Eaglesfield	do.
Free Library, Fittings, &c. Penzance	Library Committee		do.
Infectious Diseases Hospital	Queensbury Loc. Bd.	Jno. Drake	do.
Flushing Chambers, &c.	Cockermouth Loc. Bd.	R. S. Marsh	do.
*New Infirmary Buildings	Steyning Union	A. Loader	do.
*Stables, &c. Leeds	North Eastern Ry.	W. Bell	do.
*Gates and Railings	Bristol U.S.A.	*Official*	May 31
Gasholder	Appledore (Devon) Gas Co. Limited	do.	do.
Long Stone Wall and Fence, Sartfell, Isle of Man	Crown Receiver	do.	do.
Granite Road Metal (400 tons)	Burgess Hill (Sussex) Local Board	do.	do.
Workhouse Wards, Barton-upon-Irwell	Union Guardians	Magnall & Littlewoods	do.
*Mortuary Buildings and Alterations to Offices	Toxteth Park Local Board		do.
Work at Several Schools	Croydon School Board	J. Price	do.
Kerbing, Channelling, &c.	Higher Bebington Loc. Board	Robt. Ridge	do.
R.C. Chapel, &c. Kilkenny Asylum	Coms. of Lunatic Asylums	G. M. Lloyd	do.
*Hot-water Heating Apparatus	Fulham Union	Drew & Langrishe	June 1
Widening Bridge, Watford	Hertford C.C.	*Official*	do.
*Trial Borings, Wickham Bishops	Essex County Asylum	U. A. Smith	June 2
*Alterations to Bridge	Hertford High. Com.	*Official*	do.
*Water Tower	Wisbech Water Co.	Urban A. Smith	do.
*Wrought-iron Tank with Girders		E. Easton & Co.	do.
*Police Station	St. Alban's Corp.	do.	do.
*Making-up Roads	Acton Local Board	*Official*	June 6
Additions, &c. to Town Hall	Kendal Corporation	do.	do.
*Heating, &c. Apparatus	Holborn Union	S. Shaw	do.
*Painting Works at Infirmary	St. George's Union	H. Saxon Snell	do.
*Waterworks	Budleigh Salterton L.B.	do.	June 7
Chapel at the College	Cheltenham College	J. M. Martin	do.
Sewerage Works	Eccles Corporation	*Official*	do.
Warehouse, Showroom, and Four Shops, Market-road, Chelmsford		H. & L. Hinnell	June 10
*Smiths' Work	Com. of Sewers (City of London)	Mr. Chancellor	June 12
Tall Chimney at Gasworks	Hamilton (N.B.) Corp.	*Official*	June 30
Asphalting Playgrounds, &c.	Normanton School Bd.	do.	No date
Sewerage Works	Hartlepool Corp.	H. C. Crummack	do.
Street Works, South Moor, Durham	Southmoor Colliery Co.	J. W. Rounthwaite	do.
Semi-detached Villas, Daisy-hill, Bradford		J. Young	do.
Two Semi-detached Villas, Cardigan-road, Leeds		T. Butler Wilson	do.
Two Houses, Craghead, co. Durham		Plummer & Burrell	do.
Additions, &c. "Selborne House," Harrogate		T. B. Wilson	do.
Shop, Dwelling-house, &c. Rochdale		G. A. Hammond	do.
School Buildings, Ryhope, Sunderland		C. Walker	do.
Seven Houses, Shops, &c. Pemberton, Wigan		W. B. Johnson & Son	do.
Three Cottages and Shop, Newark	R. Beckett		do.
Eight Houses, Abram	W. Pimblett		do.
Two Churches, Rhondda Valley, S. Wales	Rev. Precentor Lewis	E. M. Bruce Vaughan	do.
Road Widening (Shields-road, &c.)	Walker Local Board	T. W. Laycock	do.
Two Houses, Longton, Preston	John Carr	Garlick & Sykes	do.
Cottages and Offices, Lusk, Ireland	Balrothery Union	C. M. Tuite	do.
Stabling, &c. Pin Mill Brow, Manchester	J. H. Gartside & Co.	T. George & Son	do.
*Stone and Iron Bridge, Olney	Bucks County Council	R. J. Thomas	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Applications to be in.
*Road Foremen (Two)	Maidstone U.S.A.	2*l.* per week each	May 26
*Road and General Foreman	Kingston-on-Thames Corporation	2*l.* 10s. per week	May 27
*Clerk of Works	Willesden Local Bd.	3*l.* 3s.	May 30
*Instructors in Woodwork	Sch. Bd. for London	100*l.*	May 31
*Foreman of Works, Gold Coast	Crown Agents for Colonies	250*l.* rising to 300*l.*	do.
*Pricing Clerk, Works Department	London County Council	3*l.* 10s.	do.
*Sanitary Inspectors (Two)	St. Marylebone Vestry	2*l.* 5s.	June 3

Those marked with an Asterisk (*) are advertised in this number. *Competitions, p.* iv. *Contracts pp.* iv., vi., viii, *and* xxii. *Public Appointments, pp.* xx. *and* xxii.

FLIMBY (Cumberland).—For building seven cottages at Flimby. Messrs. Moffat & Bentley, architects, Whitehaven :—

Humphrey Archer	£1,251 5	Joseph Scott	£947 16
Jonathan Young	1,222 5	Samuel M'Whinney, Workington*	884 0
J. Coulthard	970 19		

* Accepted.

GILLINGHAM (Kent).—Accepted for removing and re-erecting the steamboat landing stage at Gillingham Pier, for the Local Board :—

Ernest A. Thompson, 9, Herne Villas, Forest Hill-road £212 0 0

GREAT YARMOUTH.—For the erection of school buildings, St. Peter's road (for 300 boys), for the School Board. Messrs. Bottle & Olley, architects, Regent-street, Great Yarmouth. Quantities by the architects :—

J. Rand	£2,739 10 0	R. Eastoe	£2,345 0 0
Cockrill & Sons	2,617 6 6	F. Grimble	2,340 0 0
T. Howes	2,578 19 0	G. W. Beech	2,300 0 0
C. T. Flaxman	2,462 0 0	G. Beckett	2,297 0 0
Cork & Co.	2,433 0 0	J. F. W. Bray	2,232 0 0
T. S. Cooper	2,431 0 0	J. Ward, Great Yarmouth (accepted)	2,216 5 0
J. Leggett	2,430 0 0	Architects' Estimate	2,380 0 0
R. Davy	2,358 0 0		

HALIFAX.—Accepted for the erection of school buildings, Luddenden Foot, for the Warley School Board. Messrs. C. F. L. Horsfall & Sons, architects, Lord-street Chambers, Halifax. Quantities by architects :—

Masons.—Crawshaw Bros, Ripponden, near Halifax	£1,725 0 0
Joiner.—Wm. Sutcliffe, Marsh, Sowerby Bridge	450 0 0
Plumber.—J. Stafford, Sowerby Bridge	134 14 0
Heating.—J. Stafford, Sowerby Bridge	59 15 0
Plasterers & Slaters.—Wm. Robinson & Sons, Sowerby Bridge	238 0 0
Lighting and Ventilating.—J. H. Pickup & Co., Ltd., Bury	77 10 0
Whitesmith.—J. Kitchen, Hall-street, Halifax	29 18 6
Ironfounder.—J. Berry, New Bank, Halifax	19 12 0
Painter.—W. Smith, Luddenden	31 10 0

HARROW-ON-THE-HILL.—Accepted for the erection of four detached houses at St. John's Church-road, Gayton-road. Mr. T. P. Figgis, architect :—

Maxwell Bros. (at per Schedule).

HORNSEY.—For street improvements, for the Hornsey Local Board. Mr. T. de Courcy Meade, Engineer and Surveyor :—

	Stapleton Hall-road.	Muswell Hill-road.
B. Cooke & Co.	£180 0 0	£1,712 0 0
Thomas Adams, Wood Green	176 5 4*	1,417 16 2*
T. G. Dunmore	196 0 0	2,203 0 0
Wm. Griffiths	—	1,518 6 6
Wm. Walker	180 9 0	—
S. Hudson	—	1,559 8 9

* Accepted.

HORNSEY.—For street improvements, for the Hornsey Local Board. Mr. T. de Courcy Meade, Engineer and Surveyor :—

	Hornsey-lane.	Tottenham-lane.	Tottenham-lane, by fire station.
B. Cooke & Co.	£781 0 0	£198 0 0	£99 0 0
Thomas Adams, Wood Green	603 11 11*	160 5 10	78 3 2*
T. G. Dunmore, Crouch End	919 0 0	107 0 0*	95 0 0
Wm. Walker	—	220 18 6	94 6 2

* Accepted.

HORNSEY.—For making up private roads for the Hornsey Local Board. Mr. T. de Courcy Meade, Surveyor :—

	Frobisher-road (Second section).	Falkland-road.	Ivy-gardens.
B. Cooke & Co.	£2,678 0 0	£3,176 0 0	£525 0 0
Wm. Griffiths	2,370 12 5	2,844 10 8	447 17 3
S. Hudson	2,314 4 0	2,779 12 6	—
Thomas Adams, Wood Green	2,114 0 0*	2,499 15 4*	445 17 0*

*Accepted.

HORNSEY.—For the construction of new stoneware sewers on the Stroud Green Estate, for the Hornsey Local Board. Mr. T. de Courcy Meade, Engineer and Surveyor :—

B. Cooke & Co.	£1,530 0 0	T. G. Dunmore	£1,389 0 0
G. Bell	1,494 10 0	T. Rowley, Tottenham*	1,057 18 0
S. Hudson	1,437 0 0		
Thomas Adams	1,398 0 0		

*Accepted.

LIVERPOOL.—For rebuilding three warehouses in Juniper-street, Liverpool, after the recent fire, for the Hand in Hand Insurance Society. Mr. Robert Willey, architect and surveyor, 33, New Bridge-street, Blackfriars, E.C. :—

W. Hope	£9,484 0 0	Jones & Sons	£8,900 0 0
J. H. McGaul	9,160 0 0	R. Costain	8,578 2 6
Tomkinson & Co.	9,108 0 0	Holme & Green*	7,960 0 0
T. Haigh	8,985 0 0		

* Accepted.

[All of Liverpool.]

LIVERSEDGE (Yorks).—For the construction of a main sewer (1¼ miles) of stoneware pipes, brick sewer, &c., for the Liversedge Local Board. Mr. Charles Gott, C.E., 8, Charles-street, Bradford :—

G. W. Naylor	£5,772 2 3	Garforth Bros.	£3,362 9 9
A. Bland	5,626 0 0	Matthew Hall	3,306 4 10
Ben Graham & Sons	4,357 0 0	Robinson & Crowther	3,298 0 0
B. & T. H. Riley	3,971 0 0	Godfrey Pearson	3,250 10 0
Benjamin Kirk	3,942 10 0	Allan Drake	3,122 0 0
Reuben Clarke	3,773 0 0	David Barry, Nottingham and Brighouse*	2,850 15 6
R. Naylor & Son	3,750 0 0		
John Slinger	3,450 0 0		
Riley Hopkinson	3,366 0 0		

*Accepted.

LLANDAFF.—For widening and reconstructing Churchroad and Ty Uchaf-road, Llanedarne, for the Highway Board. Mr. Jas. Holden, C.E., surveyor, Belthorn, Llandaff :—

Ty Uchaf-road.

Lloyd & Powell	£263 10 0	Jno. Thomas	£207 15 0
W. Lewis	256 3 4	Ed. Moses, Rudry, Glamorgan*	198 17 6
T. J. Davies	213 10 0		

*Accepted conditionally.

Church-road.

W. Lewis	£311 12 6	T. J. Davies	£211 18 6
Lloyd & Powell	299 4 7	Ed. Moses, Rudry, Glamorgan*	192 12 6
Jno. Thomas	219 15 0		

*Accepted conditionally.

LLANTRISANT.—For alterations, additions, &c., to school buildings, Penrhiwfer, for the School Board. Mr. J. J. Evans, architect, Penarth.

Chidzey & Thomas	£450	Henry Rowling, Williams-Lemmel Evans	£398
		town, Penygraig*	

[Architect's estimate, £398.]

* Accepted.

LONDON.—For alterations to "The Queen's Head and French Horns" public-house, Little Britain, E.C., for Mr. B. Lucas. Mr. C. A. Legg, architect, Grafton-street, Mile End. Quantities by Mr. W. Hawker Gracechurch-street, E.C. :—

	Alternative Estimate.
Dearing & Son	£1,903 0 0 £81 0 0
Holliday & Greenwood	1,857 0 0 103 0 0
Edwards & Medway	1,600 0 0 49 0 0
W. Walker	1,598 0 0 72 0 0
S. W. Hawkins	1,452 0 0 98 0 0
Jarvis & Son	1,412 0 0 92 0 0

LONDON.—For erecting casual wards at Millman-street, Chelsea, for the Guardians of the Poor of Chelsea. Messrs. A. & C. Harston, Architects, 5, Leadenhall-street, E.C. :—

Shillitoe & Son	£10,380	J. Allen & Sons	£9,970
G. Wade	10,182	C. Miskin	9,103
Leslie & Co.	9,797	E. P. Bulled & Co.	9,000
W. H. Smith	9,543	J. & C. Bowyer, Upper Norwood (accepted)	8,685
W. Johnson & Co.	9,457		

LONDON.—For constructing new sewers in Montagu-place, Russell-square, and Southampton-row, and underpinning sewers in Bedford-square, Caroline-street, Great Russell-street, Great White Lion-street, Kenton-street, Lloyd's-court, and Southampton-row, for the St. Giles's District Board of Works :—

T. Adams & Sons	£7,421	W. Neave & Son	£4,987
J. Mowlem & Co.	6,589	C. W. Killingback & Co.*	4,197
J. Bentley	5,065		

* Accepted.

[Surveyor's estimate, £4,138.]

LLANWRDA (Carmarthenshire).—For the restoration of the parish church. Mr. Stephen W. Williams, architect, Rhayader, Radnorshire :—

David Jenkins	£1,300 0	S. Deakins	£952 10
John D. Williams	1,266 0	Alfred Meredith	900 0
Charles Edwards	1,170 0	Evans & Son	797 8
Thomas Watkins & Co., Limited	1,144 0		

LONDON.—For alterations and new shop front at Denmark-road, Camberwell, Surrey. Messrs. H. Ough & Son, architects :—

Gard	£229	Spreckley	£180
G. J. Hosking	213		

LONDON.—For additions to the workhouse, Upper Edmonton, for the Union Guardians. Mr. T. E. Knightley, architect, 106, Cannon-street, London, E.C. Quantities by Messrs. Batterbury & Hudey :—

F. Voller	£27,498	Allen & Sons	£26,983
F. J. Coxhead	27,265	W. Shurmur	26,865
Lawrence & Son	27,245	Treasure & Son	26,760
Parnell & Son	27,211	C. Wall	25,909

LONDON.—For providing and fixing heating apparatus on the low-pressure hot-water system, with the necessary boilers, for the enlargements of the Langford-road School, Fulham, and the Bell-street School, Edgware-road, which are now in course of erection, and also for extending the new apparatus to the existing portions of these buildings, for the School Board for London ;—

Langford-road, Chelsea.

T. Potter & Sons	£290	W. G. Cannon	£167
Fraser & Fraser	256	J. F. Clarke & Son	167
G. Davis	230	Purcell & Nobbs, Cleveland-street, W.*	163
J. & F. May	215		

Bell-street, Marylebone.

Wenham & Waters	£552 0	Z. D. Berry & Sons	£366 10
Fraser & Fraser	380 0	W. G. Gannon, London-road, S.E.*	286 12
J. Gibb & Son	369 0		
Purcell & Nobbs	337 0		

* Accepted by the Works Committee.

LONDON.—For the execution of drainage works, sewerage, &c., Haggerston, for the Shoreditch Vestry. Mr. A. J. Martin, Surveyor, Town Hall, Old-street, E.C. Quantities by Messrs. W. H. Barber & Son, 22, Buckingham-street, W.C.

No. 1 Contract—Brick Sewers.

Meston	£7,088 6 5	J. Neave	£3,830 10 6
Mowlem & Co.	6,085 0 0	J. Jackson	3 725 0 0
Killingback	4,518 0 0	B. Cooke & Co.	3,700 0 0
T. Adams	4,103 3 8	Wilkinson Bros., Finsbury-park, N.*	3,383 0 0
W. Griffiths	3,999 9 9		
W. Neave & Son	3,878 0 0	*Accepted.	

No. 2 Contract.—Pipe Sewers.

J. Mowlem & Co.	£4,713 0 0	T. Adams	£2,627 19 0
J. Meston	4,102 15 4	W. Neave & Son	2,515 0 0
J. Burrill	3,435 18 7	J. Neave	2,449 15 10
W. Griffiths	2,954 11 4	Wilkinson Bros.	2,400 0 0
C. W. Killingback & Co.	2,842 0 0	J. Jackson, Broadway, Plaistow*	2,250 0 0

* Accepted.

LONDON.—For internal fittings at "The British Oak" Tavern, Stoke Newington. Mr. R. A. Lewcock, architect, 88, Bishopsgate-street Within, E.C. :—

Contractor and Pewterer.

T. Heath (accepted) £1,057 0 0

Gas-fittings.

W. Winn (accepted) £184 0 0

LONDON.—Accepted for improvements at 21, Highbury New Park. Mr. R. A. Lewcock, architect, 18, Bishopsgate-street Within, E.C. :—

Simpson & Cove £141 0 0

LONDON.—For alterations and additions to 69, Effra-road, Brixton. Mr. William Hunt, architect, 5, York-buildings, Adelphi, W.C. :—

McLachlan & Sons	£517	G. P. & H. Barnes	£487
Smith & Sons	493	Wm. King & Sons	440

LONDON.—For new studio and decorations at 47, Regent's Park-road, N.W. Mr. H. Helsdan, architect :—

Macey	£417	W. Vanstone	£385
Carr	402	Cauley	345

LONDON.—For reinstating No. 14, Jewin-crescent and Nos. 17, 45, 45A, 45B, Jewin-street, after the recent fire, for the Hand-in-Hand Insurance Society. Mr. Robert Willey, architect and surveyor, 33, New Bridge-street, Blackfriars, E.C. :—

W. Rowe	£3,075	Clark & Bracey	£1,597
Hall Beddall	2,260	Holliday & Greenwood*	1,368

*Accepted.

LONDON.—For new wing for the Committee of the Ealing Cottage Hospital, Ealing Dean, W. Mr. Robert Willey, architect and surveyor, 33, New Bridge-street, E.C. :—

Dovey & Co.	£1,332	Down	£998
Myring	1,130	Nye, Ealing (accepted)	980

LONDON.—For the erection of two houses in Glenny-road, Barking, for Mr. Saunders. Mr. Geo. Lamb, architect, 76, East-street, Barking :—

Carter	£595	B. Hobbs	£400
G. J. Hosking	499	W. W. Smith	390
Wyles	481		

LONDON.—For repairs to 6 Dufours-place, W., for the St. James's Vestry. Mr. L. W. Goodwyn, surveyor, Granville-chambers, Granville-place, Portman-square, W. :—

G. Foxley	£437	S. & S. Dunn	£366
Turner, McKay, and Ashpole	435	R. & J. Shiers	348
G. H. & A. Bywaters	395	F. G. Minter & Co.	297
H. Faulkner	384	Lilly & Lilly	267
		A. Faulkner (accepted.)	255

LONDON.—For additions to the Trinity Mission, Stratford, E., for the President and Committee of Trinity College, Oxford. Mr. E. C. Stimson, architect :—

Osborn & Sons	£1,661	G. J. Hosking	1,566
Reed & Son	1,596		

LONDON.—For the erection of an infectious diseases hospital, Dog-lane, Stonebridge, for the Willesden Local Board. Messrs. Edmeston & Gabriel, architects. Quantities by Messrs. Northcroft, Son, & Neighbour :—

Lascelles & Co.	£16,511	Carmichael	£14,645
W. Shepherd	15,808	Scharien & Co.	14,510
Yerburg	15,400	Young & Lonsdale	14,448
Lorden & Co.	15,275	Sodson & Sons	14,278
Cowley & Drake	14,891	Neave & Neave	12,870
Lawrence & Son	14,856		

LONDON.—Accepted for alterations and re-decorating at 189, New Bond-street :—

W. Vanstone £160 0 0

LONDON.—Accepted for alterations at 8, New Church-court, Strand. Mr. Banks, architect :—

W. Vanstone £102 0 0

LONDON.—For erecting a pupil teachers' centre on the site in Church-terrace, Plumstead, for the School Board for London. Mr. T. J. Bailey, Architect :—

James Longley & Co.	£7,623	Holloway Bros.	£6,642
B. E. Nightingale	7,230	Hart Bros.	6,362
S. & W. Pattinson	7,043	Kirk & Randall, Woolwich*	6,170
J. & M. Patrick	6,905		

* Recommended by the Works Committee for acceptance.

LONDON.—For carrying out works in connexion with the drainage and sanitary arrangements at the Magdalen-street schools, Horselydown, for the School Board for London :—

S. Polden	£238 0	J. T. Robey	£165 0
Leeks & Hooker	185 0	W. & H. Castle, Southwark*	146 10
J. N. Calnan & Co.	170 0		
H. Mallett	168 0		

* Recommended for acceptance by the Works Committee.

LONDON.—For pulling down and rebuilding "The Crown" beer-house, Brandon-street, Walworth, S.E., for The New London Brewery Company, Limited, Mr. William J. Ingram, architect, 44, Theobolds-road, Bedford-row, W.C. :—

Saley & Son	£1,400 0	J. Parsons	£1,090 0
W. Rowe	1,330 0	White & Co.	999 0
J. Howlett	1,239 0	J. Knight, Westminster*	947 17
J. Sparks	1,095 0		
Mid Kent Building Co.	1,095 0		

* Accepted.

LONDON.—For alterations to "The Old Farm House." Mr William J. Ingram, architect, 44, Theobald's-road, Bedford-row W.C. :—

J. Knight	£129 10 0	J. Howlett	£123 0 0

LONDON.—For the erection of six shops, High-street, Clapham Mr. J. W. Stevens, architect, 21, New Bridge-street, London, E.C Quantities supplied :—

Scott	£5,545	Whitehead & Co.	£4,625
Kingerlee	5,190	Carmichael	4,588
Bowyer	4,998	Sawyer	4,475
Hayworth & Sons	4,997	Batley, Sons, & Holness	4,379
White & Co.	4,931	Castle	4,371
Marsland	4,815	Triggs	4,255
Lorden & Sons	4,687	Garrett & Son	3,925

LONDON.—For rebuilding premises, Blackheath Hill, for the West Greenwich Co-operative Society, Limited. Mr. Lawton R. Ford, architect, St. Thomas's Chambers, London Bridge, S.E. :—

J. Bullers	£1,515	Batley, Sons, & Holness	£1,349
H. Bridel	1,494	Holloway	1,343
Pritchard & Renwick	1,484	Kennard Bros.	1,329
W. & H. Castle	1,443	Co-operative Builders, Ltd.	1,284
S. J. Jerrard	1,389	F. Gorham	1,283
J. Marsland	1,385	G. W. Martin (accepted)	1,265
White & Co.	1,365		

LONDON.—For providing and laying a large quantity of kerbing, flagging, and tar-paving, Child's Hill and Hendon (Contract No. 6) for the Hendon Local Board. Mr. S. S. Grimley, Engineer and Surveyor, Local Board Offices, The Burroughs, Hendon, N.W. :—

Nowell & Robson	£627 13 9	Constable & Co.	£552 12 3
Mowlem & Co.	623 10 10	W. H. Wheeler, 131, Sunmer-st., Blackfriars (accepted)	538 0 0
Allen & Son	618 9 2		
R. Ballard	617 10 9		

MAGHERAGALL (Ireland).—For the renovation of the Presbyterian Church, for the Church Committee. Mr. Jas. Hunter, architect, Brookmount, Lisburn :—

Jno. Coulter	£454	Jno. Vernon & Son	£399
Jas. H. Burns	418	Jno. Morgan, Lisburn*	300

* Accepted.

MAIDSTONE.—For athletic ground, Maidstone. Messrs. J. Tootell & Sons, surveyors, Maidstone :—

James Bowles	£5,200 0 0	Wallis & Son	£3,130 0 0
Johnson & Co.	4,990 16 8	Meston Brothers	3,117 10 0
H. H. Greenhill	4,871 1 8	Garlick & Horton	3,113 14 2
G. J. Slade	4,800 0 0	S. N. Pryer & Co.	2,800 0 0
John Neave	4,738 0 0	W. Coker	2,646 13 7
W. J. Botterill	4,113 11 8	A. T. Catley	2,200 0 0
James Farrow	3,783 12 8	Brewer & Packham	2,200 0 0
W. Neave & Son	3,748 0 0	W. Meats (accepted)	2,200 0 0
W. Jenner	3,215 5 0	W. H. Wheeler	2,075 0 0
J. T. S. Stone	3,189 10 10	J. Gott	1,392 11 8
John Band	3,166 0 0		

MANSFIELD.—For sewering and forming a new street at Hucknall-under-Huthwaite, for Miller's Trustees. Mr. Wm. Dodsley, surveyor, Mansfield :—

John Lane	£388 0 0	M. Saylor	£260 0 0
Bower & Bostock, Hucknall-under-Huthwaite*	279 5 10		

* Accepted.

NORDEN (Lancs).—For the erection of a post-office, shop, and dwelling-house, for Mr. Ashworth. Messrs. S. Butterworth & Duncan, architects, 4, South-parade, Rochdale. Quantities by architects :—

T. Ashworth & Sons, Norden £496 10 0

NORTHAMPTON.—For the erection of small boot and shoe factory, Princess-street, Earls Barton, Northampton, for Mr. W. F. Austin. Mr. Abraham Mosley, architect and surveyor, Goodyear Chambers, Abington-square, Northampton :—

Bricklayer, Mason, and Slater Works.

J. Harris	£142 0 0
F. Johnson & Son, Earls Barton (accepted)	121 0 0

OXFORD.—Accepted for alterations to a house at Oxford. Mr William J. Ingram, architect, 44, Theobald's-road, Bedford-row, W.C. Quantities by Mr. F. J. W. Buss :—

Ormer & Son (no tendering) £1,845 0 0

OXFORD.—For alterations to stables at a house at Oxford. Mr. William J. Ingram, architect, 44, Theobald's-road, Bedford-row, W.C. :—

Ormer & Son £276 0 0

PEMBROKE DOCK (Wales).—For the erection of a church Pennar, for the Rev. J. Seymour Allen, M.A. Messrs. Thos. Nicholson & Son, architects, Hereford :—

T. R. Thomas	£1,944	William Davies, senr.	£1,717
John Davies, junr.	1,757	Davies & Morgan	1,687

PERTH.—For the construction of an outfall sewer along Tay-street and Shore-road, for the Police Commissioners. Mr. Robt. M'Killop, Burgh Surveyor, 3, High-street, Perth :—

R. C. Brebner	£5,457 0 0	L. & W. Macdonald	£3,909 2 11
D. & R. Taylor	5,415 17 6	J. Paton & Co.	3,985 2 8
R. Brand & Son	4,935 0 0	J. Drysdale	3,785 5 11
Fraser & Morton	4,682 7 3	A. Brunton & Son	3,653 3 5
G. Mackay & Son	4,697 8 3	P. Irvine	3,556 12 4
Henderson & Duncan	4,413 12 2	J. Melloy, Perth*	3,513 0 0
W. G. Flett	4,243 12 10		

*Accepted.

PETERBOROUGH.—For the erection of five cottages, Stanground, for Mr. Tow. Mr. John Stallebrass, architect, North-street, Peterboro' :—

Thomas	£797 0 0	Coe	£707 0 0
Nichols	789 0 0	Hicks	705 3 0
Binder	774 0 0	Faulkner	698 0 0
Noble	738 0 0	Shepperson	660 0 0
Sibley	715 0 0	Guttridge, Peterboro'*	625 0 0
Bridgefoot	687 17 4		

*Accepted.

POOLE.—For laying 14,000 super yards of tar-paving on foot-paths, for the Town Council. Mr. Jno. Elford, C.E., Borough Surveyor, King-street, Poole :—

W. Beauchamp, Cranmore, Shepton Mallett 1s. 9d. per yd. sup.

POOLE.—For the erection of quay walls, and other improvements, High-street, for the Town Council. Mr. Jno. Elford. C.E., Borough Surveyor, King-street, Poole :—

Quay Walls.

T. C. Rigler, Poole £225 0 0

High-street Improvements.

T. C. Rigler, Poole £55 0 0

PRESTON.—For supplying and laying about 1,100 yards of 9-in. earthenware socketed pipes under Garstang-road, &c., for the Fulwood Local Board. Mr. Jno. J. Myers, engineer, 15, Chapel-street, Preston. Quantities by engineer :—

J. Gott	£764 14 6	Etheridge & Clarke	£495 0 0
J. Orrell	553 9 3	Thos. Horrocks	436 5 7
A. A. Tullis	537 0 0	J. Bashall	353 0 0
T. & R. Colley	513 0 0	J. Moxham, Bracken-bury-road, Preston*	313 15 9
W. Winnard	500 0 0		

* Accepted.

REDHILL (Surrey).—For making-up roads and footpaths; tar paving, &c., for the Society of St. Anne's Asylum. Messrs. Crickmay & Sons, architects, 17, Parliament-street, Westminster London, S.W. :—

J. Jackson	£809 0	M. S. Kitteringham	£525 0
Messrs. Bradshaw & Co.	616 9	J. Bowles, Battersea (accepted)	519 0
S. Atkins	580 0		

SLEAFORD (Lincs).—For the erection of a villa residence, Northgate, for Mr. John Hoodle. Mr. J. Clare, architect, Sleaford. Quantities by architect :—

Newton & Rose	£956 0	Pattinson	£787 0
Maxey	822 0	Booles & Tapster, Sleaford (accepted)	731 0
Butt, jun.	811 10		

STROOD (Kent).—For the erection of dining-hall, kitchens, &c., to the Workhouse, for the Union Guardians. Mr. G. E. Bond, architect, Rochester. Quantities by the architect :

C. J. Slade	£1,813 7 6	West Bros.	£1,555 0 0
J. G. Naylar & Son	1,790 0 0	L. Seager	1,524 10 0
G. West	1,740 0 0	G. Gates	1,465 0 0
M. C. Fenton	1,666 0 0	Wm. Coker, Halling, nr. Rochester*	1,396 3 7
T. Callund & Son	1,640 0 0		
C. E. Skinner	1,620 0 0		

* Accepted.

SURBITON (Surrey).—For the erection of granary, Victoria-road, Surbiton, for Mr. W. Metcalfe. Mr. E. Carritt, architect, Great St. Helen's, E.C. No quantities :—

Wm. Mudie	£385 0 0	T. Dunn	£335 9 6
T. Adkins	384 0 0	Babbs Bros.*	334 0 0

* Accepted.

SURBITON.—For the construction of a pipe sewer, Victoria-road, for the Surbiton Improvement Commissioners. Mr. S. Mather, Surveyor, Victoria-road, Surbiton. Quantities supplied :—

S. Kavanagh	£244	Saml. Atkins, Kingston-on-Thames (accepted)	£213

Engineer's estimate, £198 3s. 2d.]

SUTTON-IN-ASHFIELD.—For providing and laying mains, Fulwood, for the Sutton-in-Ashfield Local Board. Mr. George Hodson, engineer, Loughborough :—

G. F. Todd	£520 0 0	Chas. Green	£419 10 0
T. Smart	492 2 9	John Lane, Skegby	404 10 0
J. F. Price	457 12 0	J. Holme	372 0 0
J. Bentley	456 0 0	Clay Cross Co., near Chesterfield*	371 16 4
Hy. Vickers	455 0 0		
W. Needham	420 0 0		

* Accepted.

SWANSEA.—For building premises in Temple-street, Castle-street, and Carr-street, for Messrs. B. Evans & Co. Messrs. J. P. Jones & Rowlands, architects. Quantities by architects :—

Hatherly & Carr (21 months)	£22,980 0 0
Wm. Bowers & Son (20 months)	22,600 0 0
Thomas Watkins & Co. (24 months)	22,500 0 0
Holway & Parsons (8 months)	22,293 0 0
D. C. Jones (15 months)	22,285 0 0
John Linton	22,200 0 0
Dd. Jenkins, Swansea (12 months) (accepted)	22,100 0 0
John D. Williams (15 months)	22,000 0 0
Stephens, Bastow (18 months)	21,798 0 0
Perry & Co. (9 months) (withdrawn)	21,753 0 0

[Architect's Estimate, £22,000.]

SWANSEA.—For the execution of private street works in a street at the rear of St. James's-crescent, for the Corporation. Mr. George Bell, Borough Surveyor, 13, Somerset-place, Swansea. Quantities by the Borough Surveyor :—

Jno. Grove	£130 5 6	William James, Swansea*	£98 17 6
Charles Hanney	111 9 6		
Bennett Bros.	99 14 6		

* Accepted.

TAVISTOCK.—For erecting new grammar school, Tavistock. Mr. F. Bligh Bond, architect, Bristol. Quantities by Mr. W. L. Bernard, Baldwin-street, Bristol :—

Reed, Blight, & Co., Limited	£5,231 19 1	S. Warren	£3,995 5 0
William Trevena	4,458 0 0	W. S. Lapthorn & Co.	3,957 0 0
John Finch	4,291 0 0	J. Julian	3,440 0 0
P. Blowey	4,153 0 0	T. Rosekilly	3,400 0 0
Williams & Westlake	4,136 0 0	W. H. Hyman, Tavistock*	3,237 16 3
Ed. Rendall	4,122 13 0		
W. H. Gooding	4,052 0 0		

* Accepted subject to modification.

THORNHILL (Yorks).—For the construction of sewers, &c., for the Local Board. Mr. Jas. C. Haller, C.E., Local Board Offices, Thornhill :—

Garforth Bros., Mirfield £2,128 9 4

TODMORDEN (Lancs.)—Accepted for the erection of school buildings, Robin-wood, for the School Board. Mr. Jesse Horsfall, architect, Todmorden. Quantities by the architect :—

Bricklayer and Mason.—Thomas Pickles, Luddendenfoot	Total
Carpenter and Joiner.—M. Mallison, Todmorden	£2,807 0 0
Slater.—Samuel Barnes, jun., Todmorden	
Plumber.—Richard H. Ingham, Todmorden	
Plasterer.—Tillotson Blacka, Todmorden	

TREGONY (Cornwall).—Accepted for rebuilding the bridge, Tregony, for the Cornwall County Council. Mr. T. J. Hickes, County Surveyor, Truro ;—

R. H. Tonkin, Grampound-road £539 17 0

WADHURST.—For erecting detached house and stables at Wadhurst, Sussex, for Mr. J. C. Lane Andrews. Mr. Hy. Ward, architect, 5, Bank-buildings, Hastings :—

	House.	Stables.
Milligan Want	£1,579 0 0	£275 0 0
Moon & Garner	1,407 10 0	200 0 0
Ashby	1,464 0 0	215 0 0
Aylard Bros.	1,288 17 0	201 13 0

WALSALL.—Accepted for paving, road-making, &c., Jesson's-lane, for the Corporation of Walsall. Mr. R. H. Middleton, Borough Surveyor, Bridge-street, Walsall. Quantities by the Borough Surveyor :—

George Law, Kidderminster £507 0 0

WALSALL.—Accepted for the erection of three chapels and entrance lodge, at cemetery, Ryecroft, for the Corporation. Mr. R. H. Middleton, Borough Surveyor, Bridge-street, Walsall. Quantities by the Borough Surveyor:—

Chapels.

R. M. Hughes, Bradford-street, Birmingham .. £2,841 0 0

Lodge.

T. & J. Hunter, Willenhall £570 0 0

WARLINGHAM.—For the restoration and enlargement of All Saints' Parish Church, Warlingham, Surrey. Mr. P. M. Johnston, architect, 27, Lombard-street, E.C. Quantities by Messrs. R. C. Gleed and A. H. Belcher:—

Thomsit & Kingham	£3,714	Maxwell Bros.	£3,450
John Greenwood	3,640	Dove Bros.	3,193
Holliday & Greenwood ..	3,488	John Marsland	2,830

WATFORD.—For the construction of storm water drainage works, for the Local Board. Mr. D. Waterhouse, engineer, 14, High-street, Watford. Quantities supplied:—

Wilkinson Bros.	£1,816	J. Neave	£1,457
B. Cook & Co.	1,814	J. Bentley	1,403
C. W. Killingback	1,575	J. Jackson	1,300
W. Judge	1,538	H. Hill	1,298
J. Wickson	1,496	F. Dupont, Colchester* ..	1,188

* Accepted.

WELLINGTON (Salop).—For the extension of the cattle market, drainage, walls, &c., for the Wellington (Salop) Markets Company. Mr. Rowland Millington, surveyor. Quantities by surveyor:—

Bradney & Lloyd	£1,893	Alfred Roper, Wellington, Salop (accepted).....	£1,570
John Gethin	1,790		
Muirhead	1,750		

WHITBY.—Accepted for the erection of a villa residence, Ruswarp, for Mr. H. A. H. Rastall, J.P. Mr. Edward H. Smales, architect, 20, Skinner-street, Whitby:—

Excavating, Brickwork, Masonry and Slating.—J. Braim, Whitby	£580	0	0
Carpenter and Joiner.—T. Fletcher, Whitby ..	406	0	0
Plumbing, Glazing, &c.—J. Brown & Son, Whitby	44	0	0

WHITEHAVEN.—For erecting new staircase at the Oddfellows Hall. Messrs. Moffat & Bentley, architects:—

Jonathan Young	£295	0	0
Chapple & Son, Moor-row (accepted)	241	10	0

WILTON (Wilts).—For widening two bridges, North-street, for the Town Council. Mr. G. J. Carse, architect, Wilton, Salisbury:—

P. Tryhorn	£393	0	0
T. Dawkins	349	0	0
E. W. Musselwhite	£325	0	
H. Lever, Tisbury*	298	10	

* Accepted.

WORKINGTON (Cumberland).—For the erection of a dwelling-house, Lilly Hall, for the District School Board. Mr. T. W. Pickthall, architect:—

G. H. Chambers	£275	0	
S. McWhinney	274	10	
Jos. Coulthard	251	11	
H. Graham	£243	10	
H. Killip, Harrington* ..	243	0	

* Accepted.

YORK.—Accepted for the erection of rooms in connexion with the Centenary Chapel, for the Trustees. Mr. E. Taylor, architect, 7, Stonegate, York. Quantities by the architect.

Bricklayer.—G. Walker *Mason.*—T. P. Barry *Plasterer.*—H. Young *Joiner.*—G. Mansfield *Slater.*—G. Dodgson *Plumber.*—T. Moyser *Smith.*—G. Dearlove *Painter.*—J. Thomas	All of York.	At Schedule of Prices.

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*3. St. Alban's	*Mar.* 7	7. Salisbury	*July* 4	11. Lincoln	*Nov.* 7
*4. Peterboro'	*April* 4	8. Bristol	*Aug.* 1	12. Gloucester	*Dec.* 5

1892.

13. St. Paul's	*Jan.* 2	17. Llandaff	*May* 7	21. Bangor	*Sept.* 3
14. Hereford	*Feb.* 6	18. Oxford	*June* 4	22. St. Asaph	
15. Chichester	*Mar.* 5	19. Southwell	*July* 2	23. Winchester	*Oct.* 1
16. Ely	*April* 2	20. Worcester	*Aug.* 6	24. Truro	*Nov.* 5
25. St. David's			*Dec.* 3		

1893.

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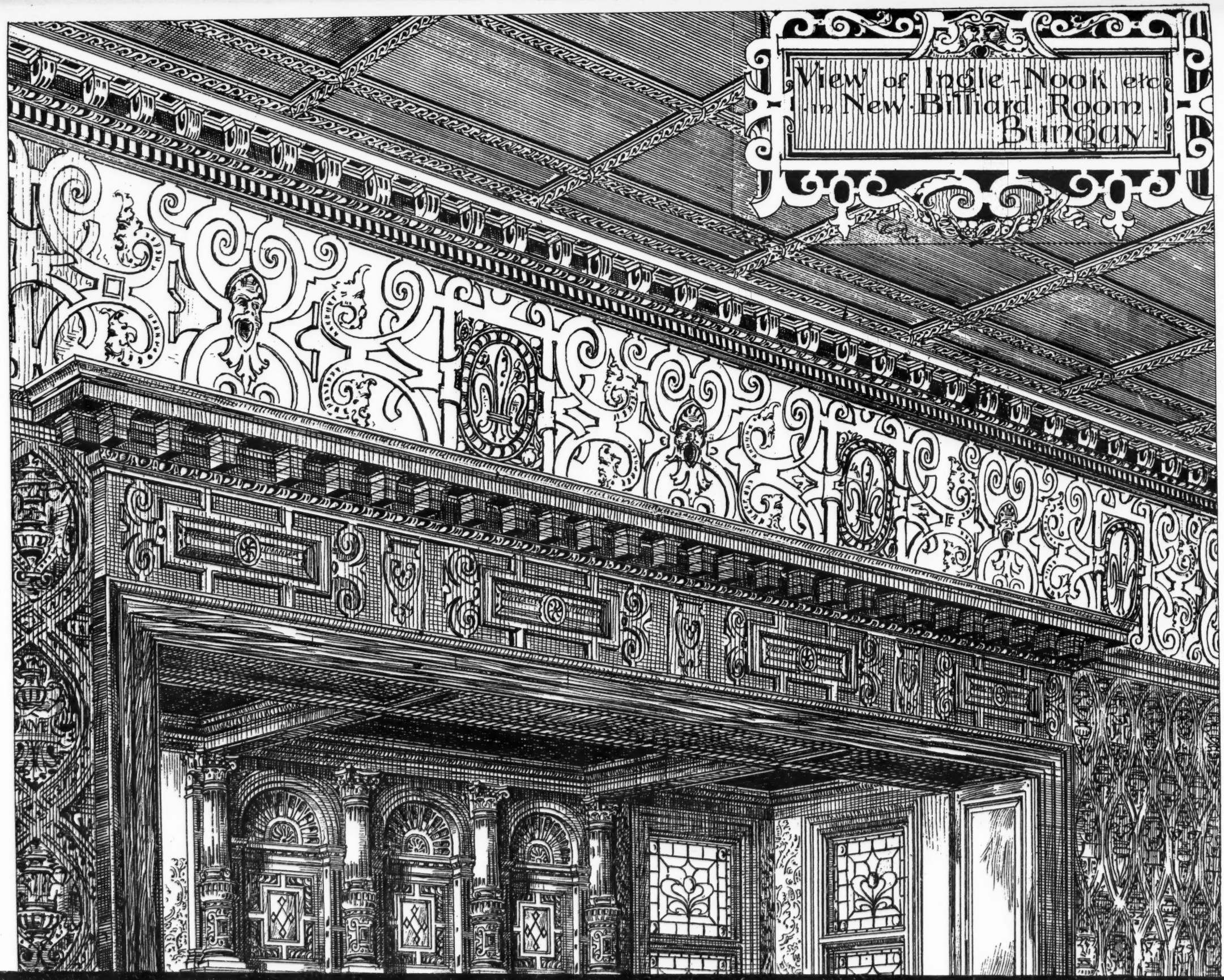
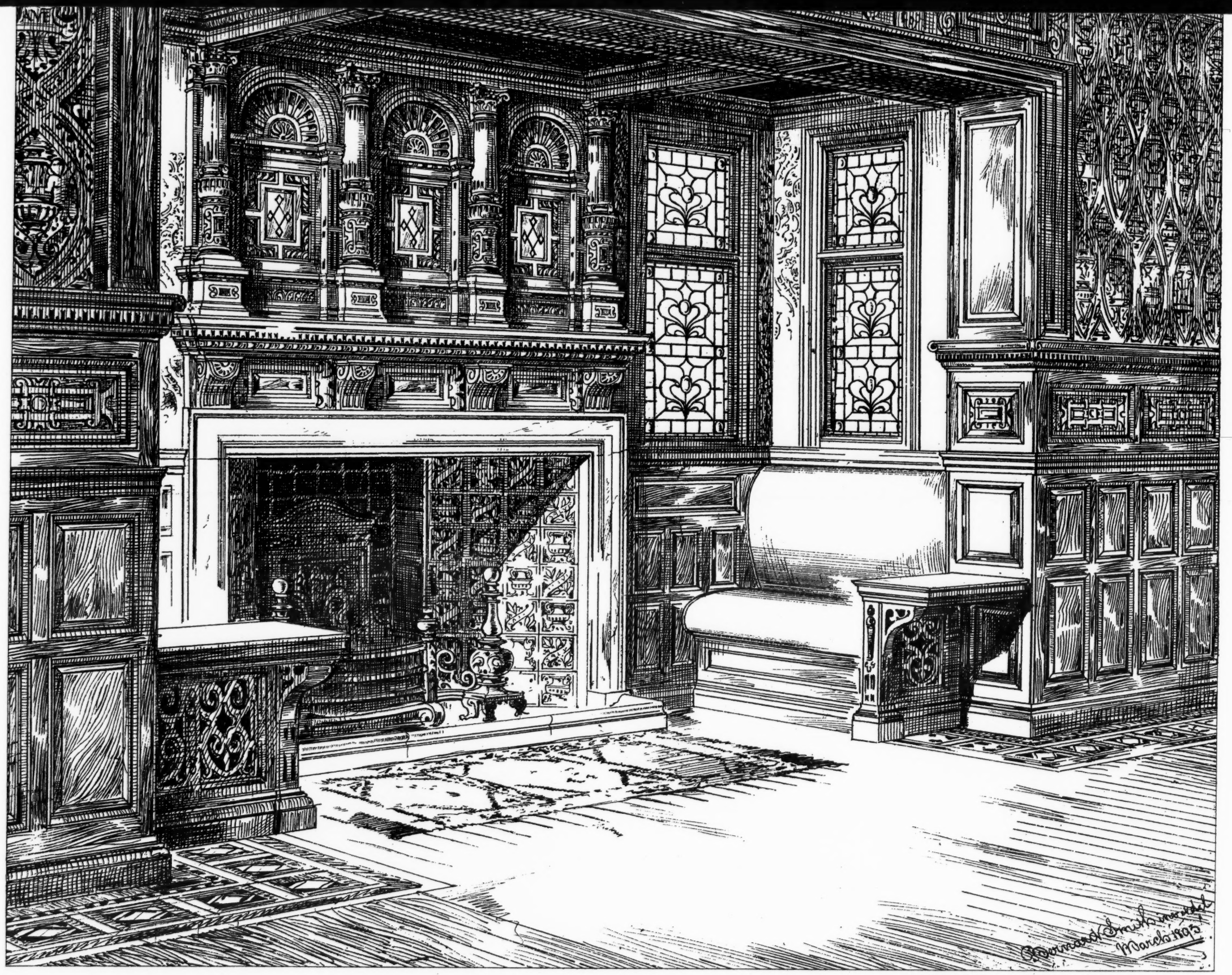


View of Ingle-Nook etc. in New Billiard Room Bingley.



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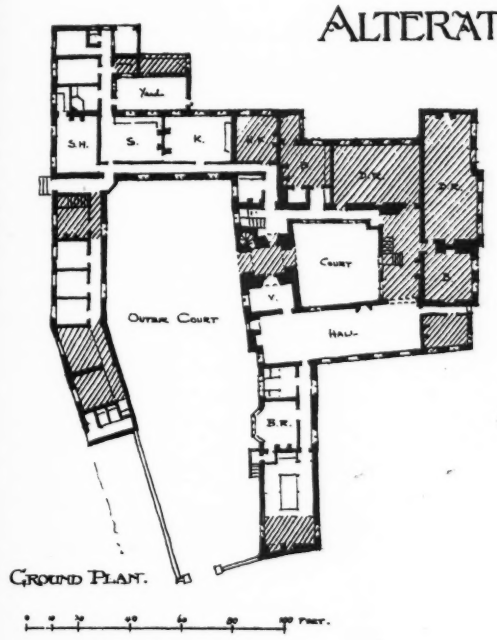
Royal Academy Exhibition, 1893.

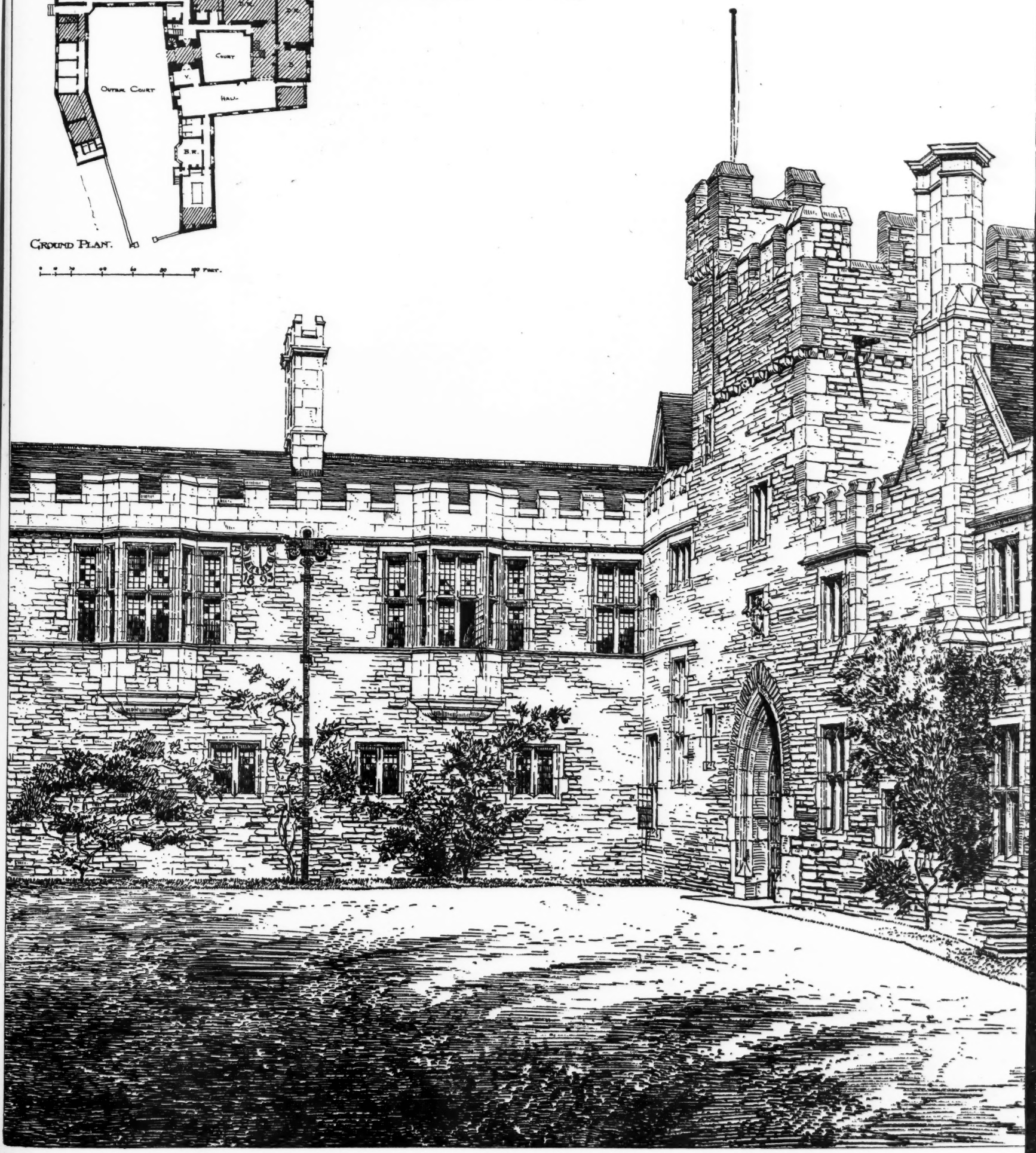
ALTERATIONS. ITTON COURT. MON.

A CORNER OF THE OUTER COURTYARD

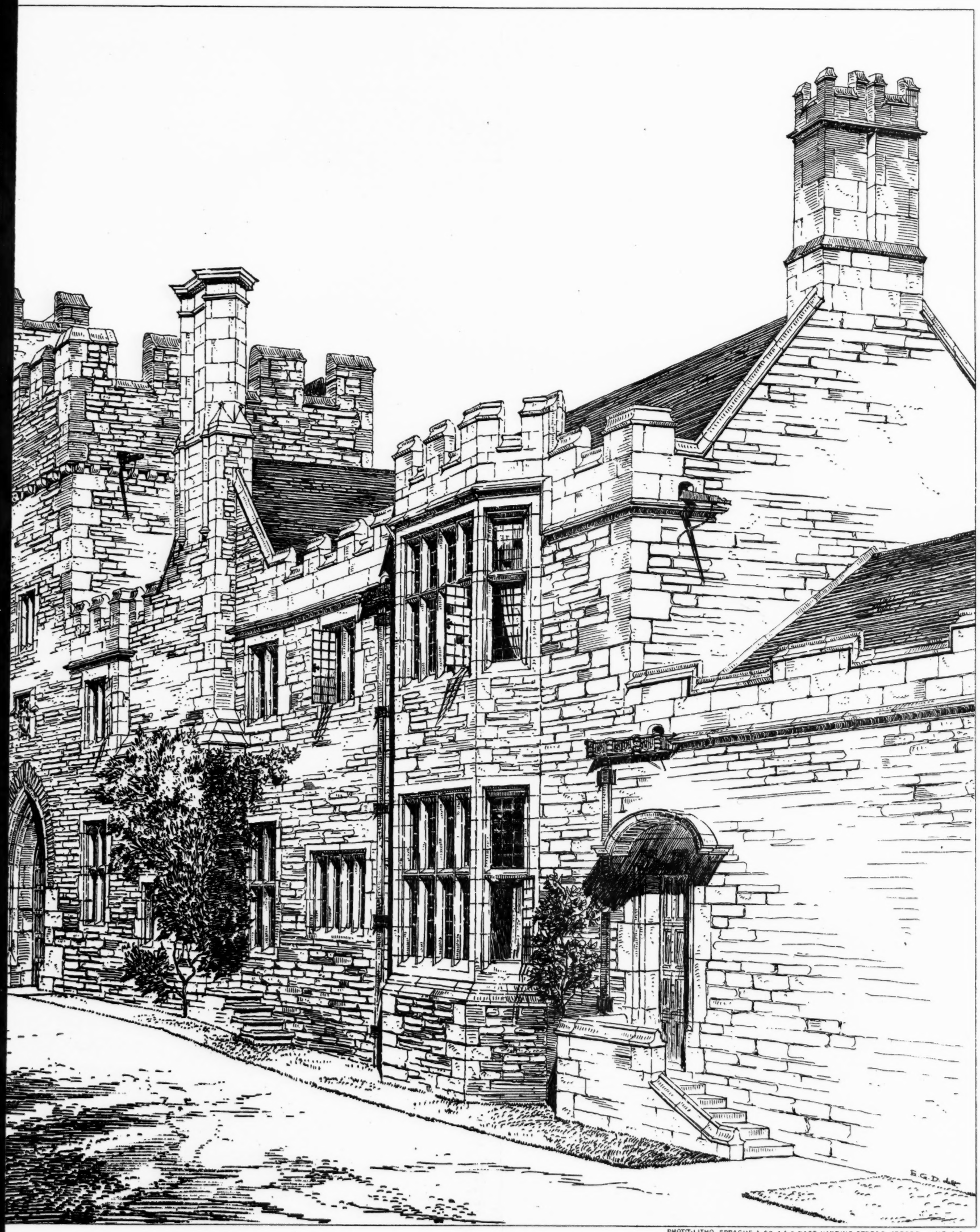
E. GUY DAWBER ARCHITECT.



GROUND PLAN.



Royal Academy Exhibition, 1893.



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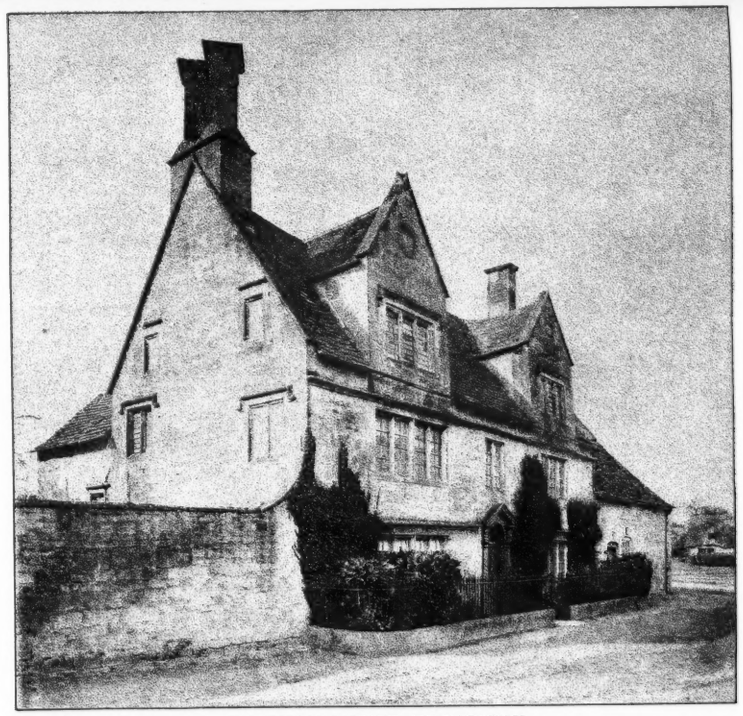
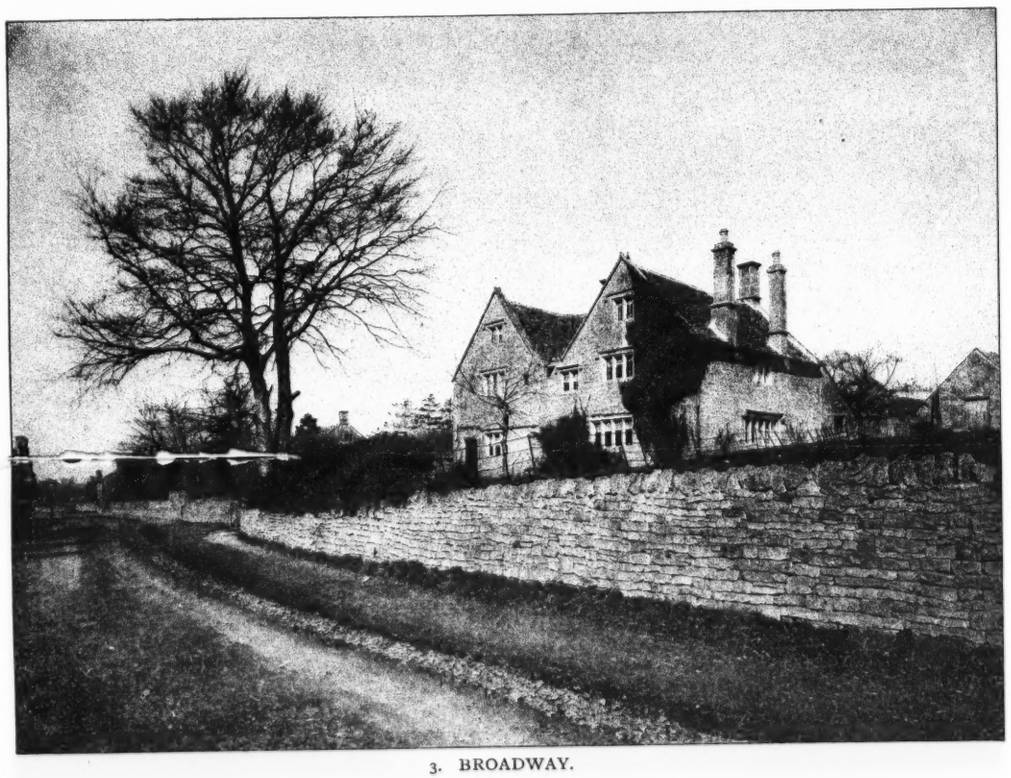
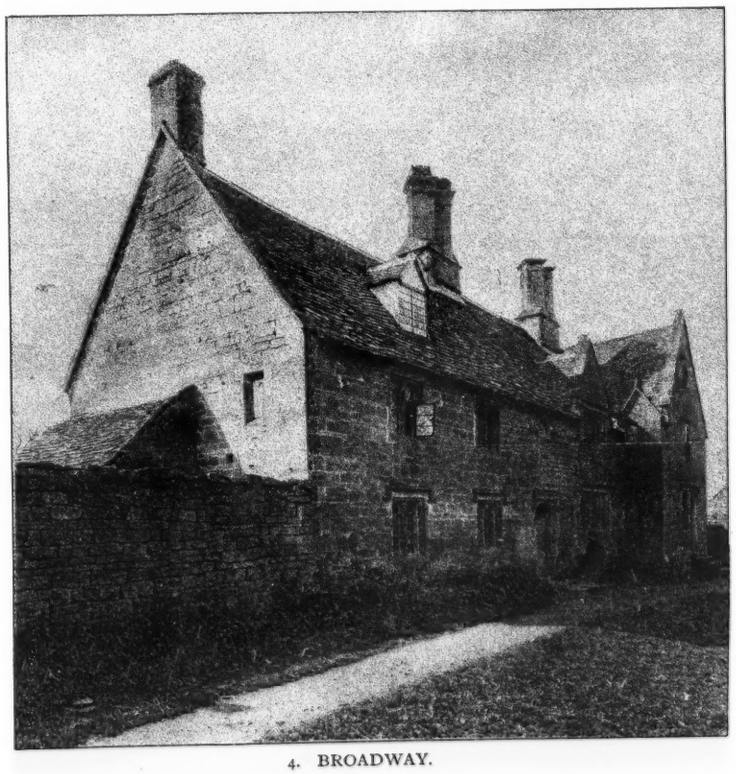


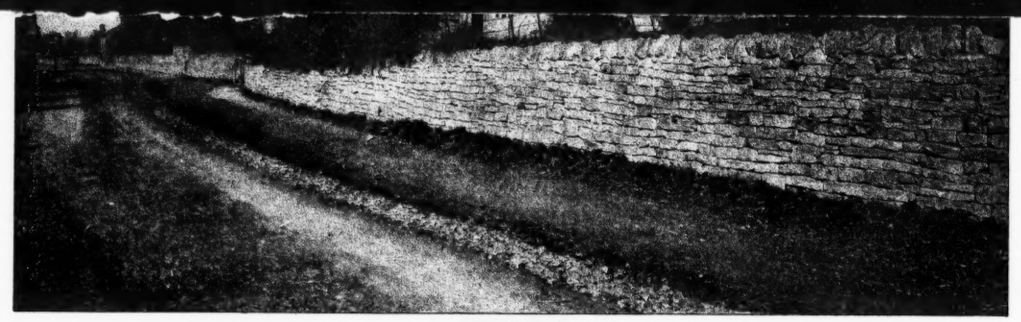
2. FARNHAM HOUSE, BROADWAY.



3. BROADWAY.



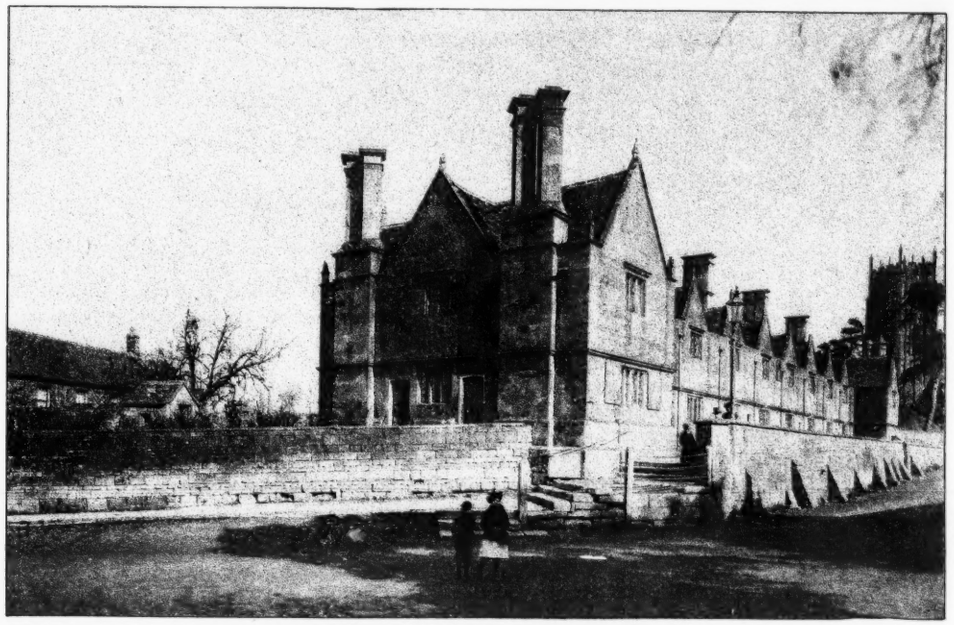
4. BROADWAY.



3. BROADWAY.

4. BROADWAY.

5. MARKET HALL, CHIPPING CAMPDEN.



6. CHIPPING CAMPDEN ALMSHOUSES.

7. BROADWAY.

8. BROADWAY.

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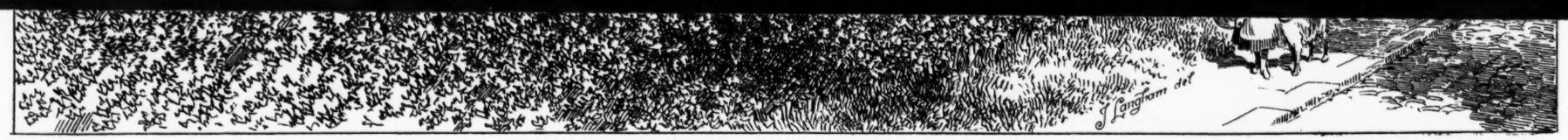

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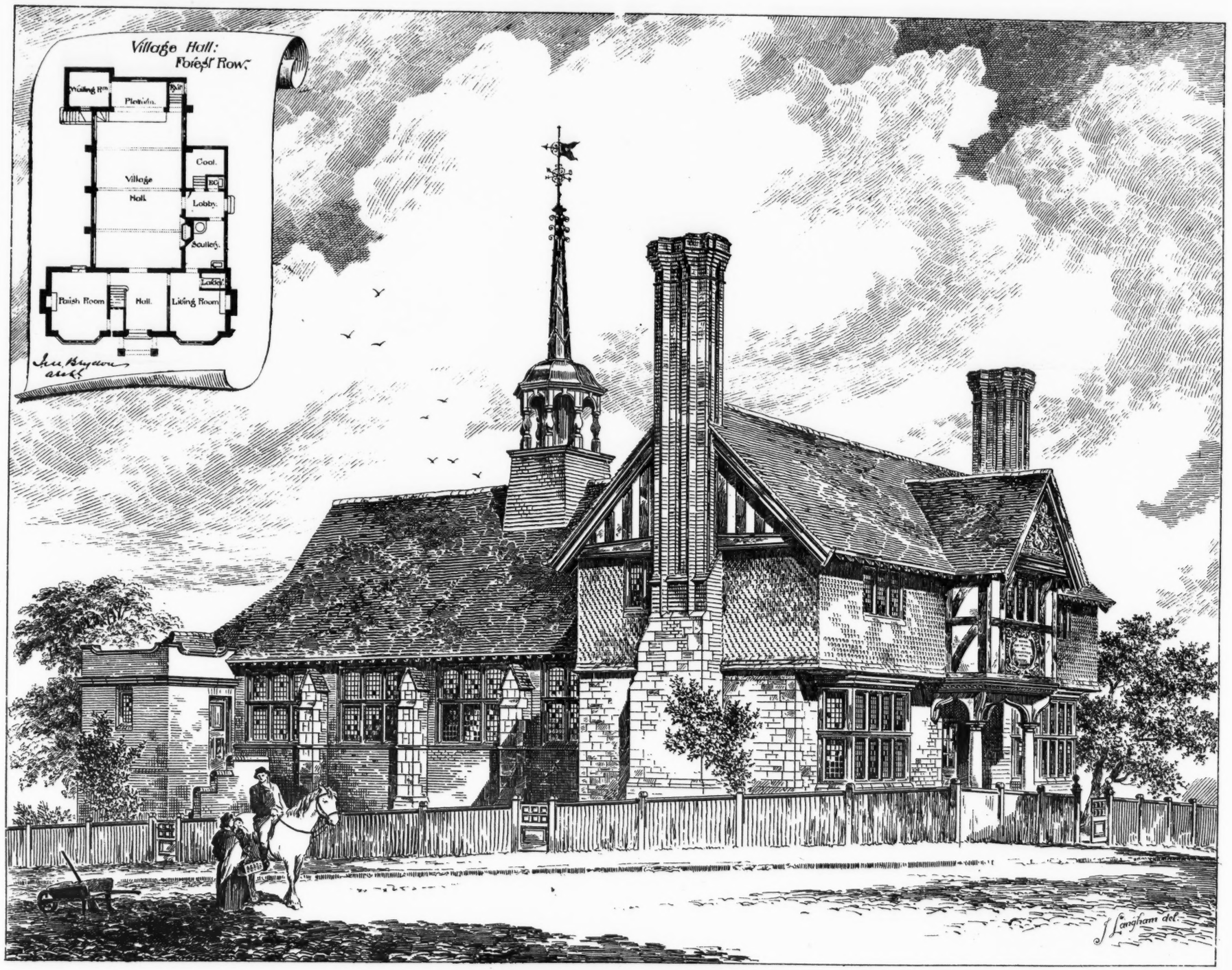

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